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WORKING PAPER 35

FRAMEWORK FOR A NEW CANADIAN DEFENCE POLICY

by

Roger Hill

June 1991

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PREFACE

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CONDENSÉ

Avec la fin du siècle qui approche, le Canada a besoin d'une nouvelle politique de défense qui définira des lignes directrices réalistes pour les efforts qu'il devra déployer dans des domaines tels que la surveillance aérospatiale, la protection des eaux côtières et le maintien de la paix et de la sécurité mondiales. Ce devra être une politique qui favorisera la réalisation des grands objectifs nationaux aux chapitres de la sécurité et des relations extérieures, et qui permettra d'espérer, dans une certaine mesure, l'établissement d'une parité entre les engagements pris en matière de défense et les ressources dont le pays disposera probablement.

La plus récente politique de défense détaillée que le gouvernement ait formulée remonte à 1987; il avait alors publié son Livre blanc intitulé *Défis et engagements*. Tout le monde reconnaît maintenant que les événements ont enlevé presque tout à-propos à ce document.

Le présent document a pour objet d'offrir un cadre de travail à quiconque voudrait analyser l'avenir de la politique de défense du Canada. Il définit les principaux paramètres à prendre en compte dans tout effort qui viserait à élaborer une structure nationale cohérente en la matière, et il s'arrête plus particulièrement à la relation critique existant entre les tâches en évolution qui incombent aux Forces canadiennes et les ressources dont le pays dispose.

Le contexte mondial

Les stratèges canadiens de la Défense se trouvent devant un monde qui change rapidement. La Guerre froide est terminée, mais l'avenir de l'Union soviétique, la sécurité de l'Europe, la paix et l'ordre mondiaux, et les conflits régionaux déchirant le tiers-monde continuent de susciter de l'inquiétude.

À l'heure actuelle, une crise interne profonde secoue l'URSS. Le pays semble avoir atteint un nouveau stade critique de son histoire, attiré d'un côté par la notion d'isolationnisme et l'attrait du conservatisme communiste, et, de l'autre, par le désir de déployer de nouveaux efforts pour faire progresser la réforme interne et coopérer davantage avec l'Occident.

La situation existant en Europe centrale présente également un défi particulier pour l'OTAN et tous ses membres, y compris le Canada. Au cours des années à venir, il se pourrait bien qu'une des principales tâches des alliés occidentaux soit de résoudre les problèmes internationaux critiques intéressant la sécurité dans cette région, problèmes qui se manifestent depuis les bouleversements politiques de 1989 et le début de 1990.

L'avenir de l'OTAN elle-même représente une autre question d'importance pour les stratèges canadiens de la Défense. Les gouvernements alliés semblent maintenant pencher en faveur du maintien de l'Organisation pour quelques années au moins, mais en en réduisant sensiblement les forces armées et en adoptant une stratégie militaire révisée prenant en compte les nouveaux paramètres de la sécurité en Europe. S'il le veut, le Canada peut assumer un rôle important dans les activités de l'OTAN au chapitre de la défense au cours des années à venir, et se donner des objectifs tels que renforcer la stabilité internationale, garder voix au chapitre européen, et conserver un «pied-à-terre» en Europe occidentale.

Comme la guerre du golfe Persique l'a révélé, les intérêts du Canada en matière de sécurité à l'étranger dépassent de loin le cadre de l'Europe. Soucieux d'appuyer l'action militaire collective, le Canada a participé directement à la campagne que la Coalition a menée pour finalement expulser les forces irakiennes du Koweït.

Il faudra peut-être constituer d'autres regroupements armés semblables dans l'avenir. La contribution militaire du Canada s'assimilera sans doute alors à celle qu'il a fournie dans le Golfe : détacher des contingents limités et très bien entraînés de la marine, de

l'aviation et des forces terrestres, des contingents qui auront des compétences ou des spécialités particulières à offrir. Règle générale, ce sera probablement un ou deux escadrons d'aéronefs, deux ou trois bâtiments de guerre, et un ou deux bataillons d'infanterie ou de parachutistes, avec les services complémentaires de transport, de logistique et de soutien.

Même si d'autres crises semblables à celle du golfe Persique n'ont pas lieu ou ne se produisent que très épisodiquement, de nombreux différends et contextes existent dans le monde, qui pourraient amener le Canada à participer à des activités militaires. Dans la plupart des cas, il s'agira probablement de missions de maintien de la paix ou d'observation, mais il ne faut pas exclure d'autres formes d'interventions militaires (par exemple, fournir une aide militaire).

Le Canada a déjà fait ses preuves au chapitre du maintien de la paix, et au fil des années, on continuera sans doute à lui réclamer régulièrement des spécialistes des communications et de la logistique, des unités d'hélicoptères et d'autres éléments de combat ou d'approvisionnement. Il est possible également qu'on lui demande à l'occasion des bataillons ou des compagnies d'infanterie, mais sans doute moins fréquemment que des techniciens, des logisticiens et d'autres spécialistes.

Aux fins de la défense, le Canada assume aussi des tâches importantes chez lui ainsi que dans le continent et à proximité de ce dernier. La défense aérospatiale du territoire national et de l'Amérique du Nord demeurera sans doute une préoccupation primordiale. Au nombre des autres rôles clefs, citons la surveillance des eaux nationales et l'aide au pouvoir civil.

Tout pays qui veut voir sa politique de défense réussir sait qu'il lui faut maintenir un équilibre entre ses engagements nationaux et internationaux en matière de défense, d'une part, et, d'autre part, les ressources dont il peut espérer disposer. Le Canada a, jusqu'ici, produit trois Livres blancs sur la défense, soit en 1964, en 1971 et en 1987; dans chaque cas, l'application de la politique énoncée a posé des problèmes très peu de temps

après la publication du document, même si celui-ci offrait des solutions utiles à toute une gamme de questions. Encore une fois, aujourd'hui, le défi consiste à élaborer une politique de défense cohérente qui définira les tâches essentielles des Forces canadiennes au pays et à l'étranger et qui précisera les catégories de matériels, de personnels et d'installations de soutien qu'il faudra pour remplir ces tâches. Nous avons maintenant besoin d'une nouvelle structure pour les Forces canadiennes, qui établira une correspondance entre les engagements et les ressources et dressera un modèle logique qui guidera le Canada dans ses activités de défense à venir.

La défense : les questions vitales qui se posent

Depuis longtemps, on estime que la protection et la défense aérospatiales du territoire national représentent deux des tâches les plus vitales des forces armées. Les attaques directes des bombardiers à grande autonomie porteurs d'armes atomiques sont devenues une menace pour le Canada dans les années qui ont suivi la Seconde Guerre mondiale, et notre pays a depuis contribué activement à la défense aérospatiale du continent nord-américain, de concert avec les États-Unis. Il a maintenu cette association malgré l'évolution des circonstances, notamment quand il a fallu en priorité se protéger contre les missiles balistiques intercontinentaux à têtes thermonucléaires et quand, délaissant la défense active, on a plutôt mis l'accent sur l'alerte et l'identification avancées en ne conservant que des moyens très limités de défense aérienne active.

Certaines décisions critiques relatives à ce rôle ont été prises au cours de la dernière décennie. Le Canada a convenu avec les États-Unis de moderniser les systèmes terrestres de surveillance et il a aussi décidé, en 1986 et en 1991, de proroger pour des périodes déterminées l'accord sur le Commandement de la défense aérospatiale de l'Amérique du Nord (NORAD). À plus long terme, le Canada devra décider des moyens à prendre pour défendre ses intérêts sur ce plan, à mesure que les relations politiques entre l'Union soviétique et l'Occident évolueront et que l'on intégrera des systèmes spatiaux efficaces aux réseaux de surveillance.

Au chapitre de la défense aérienne, il faut aussi inclure les patrouilles aériennes en mer, le transport aérien militaire, et le soutien aérien tactique à fournir aux forces terrestres. Voilà autant de tâches qui demeureront sans doute et qui nécessiteront, avec le temps, l'acquisition de nouveaux aéronefs. Le principal engagement qui subsiste pour les forces aériennes concerne la défense des territoires alliés en Europe; le débat à cet égard porte notamment sur l'avenir du 1er Groupe aérien du Canada (1 GAC). Les principales options se résument comme suit : lui conserver deux escadrons, avec quarante-huit avions; ne garder qu'un seul escadron et vingt-quatre avions; ou le ramener au complet au Canada.

La défense maritime revêt aussi beaucoup d'importance. Le souci du Canada d'affirmer sa souveraineté sur ses eaux nationales et ses zones de pêche, de veiller sur son environnement marin, de protéger le continent nord-américain de concert avec les États-Unis, de défendre l'Atlantique Nord et de préserver la stabilité internationale avec le soutien d'autres pays partageant les mêmes idées que lui, voilà qui montre que notre pays va vouloir conserver dans l'avenir prévisible des forces navales dignes de mention.

De quel type de flotte le pays doit-il se doter ? Telle est la question. Un des scénarios possibles se présente comme suit : mener à terme les plans actuels d'acquisition de frégates et de navires chasseurs de mines, puis se doter de patrouilleurs côtiers rapides, d'aéronefs de patrouille côtiers et d'une petite flotte de sous-marins hybrides ou classiques. Il sera important, aussi, de déployer des sonars de fond fixes. Et l'on renforcera probablement les accords de coopération entre les diverses flottes du Canada, dont celles de la Garde côtière et du ministère des Pêches.

Autre question critique, l'avenir des forces terrestres. Au cours des quatre dernières décennies, elles ont principalement assumé des rôles en Europe et dans les contingents de maintien de la paix, tout en remplissant des tâches au Canada même, notamment en prêtant main-forte sur demande aux autorités civiles. Le gouvernement est en train de redéfinir leur rôle en Europe, vu l'évolution marquée de la conjoncture

politique et des paramètres de la sécurité là-bas, et vu ce que coûterait l'acquisition de nouveaux chars de combat et des équipements connexes. Trois grandes options existent : laisser un groupe-brigade en Europe et le rééquiper de nouveaux chars de combat; modifier la contribution du Canada en Europe en y déployant essentiellement un groupe-bataillon qui compterait environ 2 000 membres; ou retirer d'Europe toutes les forces terrestres canadiennes s'y trouvant. La taille que l'armée conservera au Canada dépendra elle aussi beaucoup du choix que le gouvernement fera parmi ces options.

Mises à part les opérations militaires en tant que telles, il existe d'autres fonctions afférentes à la défense; citons les communications, l'instruction, la logistique, les services d'état-major et l'entretien des bases et installations. À l'heure actuelle, les effectifs de ces éléments représentent plus de la moitié de tout le personnel militaire et civil du ministère de la Défense nationale, et plus du tiers du budget de la Défense leur est consacré. Le gouvernement devra déployer de nouveaux efforts pour alléger le soutien et l'infrastructure de défense s'il veut éviter que les forces armées se transforment en un appareil administratif archi-lourd et que toute la structure de défense finisse par «imploser».

Quand il opérera des changements, le gouvernement devra se soucier de la viabilité militaire, tout en se rappelant que les forces armées jouent des rôles importants dans la société canadienne, rôles qu'il lui faudra respecter à mesure que les ajustements s'effectueront. Par exemple, les forces armées réussissent à merveille à doter de compétences techniques et autres les milliers de recrues qui s'y enrôlent chaque année. Voilà qui représente une contribution fort valable à l'économie canadienne!

Engagements et ressources

La capacité du Canada de respecter ses divers engagements en matière de défense dépend des ressources économiques nationales et du degré de priorité accordé aux demandes de fonds de la Défense par rapport aux autres besoins auxquels on presse le gouvernement fédéral de répondre. À l'heure actuelle, il semble que le budget de la Défense sera réduit; au mieux, il demeurera stable.

Le ministère de la Défense nationale devra donc gérer ses fonds très judicieusement. Il réalisera sans doute des économies importantes en réduisant les effectifs des Forces canadiennes en Europe et ici au pays. Au cours des années à venir, les autorités de la Défense affronteront aussi une autre tâche vitale, à savoir couper certains des très lourds budgets accordés à l'infrastructure et au soutien. Il sera essentiel également d'attribuer moins au budget du Personnel, de l'Exploitation et de l'Entretien (P, E et E), et davantage aux immobilisations. Les forces armées doivent posséder du matériel moderne efficace pour garantir leur viabilité dans l'avenir en tant qu'organisation militaire.

Une nouvelle structure pour les Forces canadiennes

Il faut une nouvelle structure pour les Forces canadiennes qui devra être en place d'ici 1995 environ, et il conviendra de l'établir en fonction des paramètres suivants :

1. En Europe, déployer un groupe-bataillon d'infanterie ou de parachutistes, avec les unités de soutien nécessaires, dans le cadre d'une force militaire multinationale de l'OTAN. Le groupe-bataillon compterait environ 2 000 membres.

2. Laisser le 1er Groupe aérien du Canada en Europe, mais en le limitant à un escadron de vingt-quatre *CF-18*, au lieu de deux.

3. Laisser à la Force mobile au Canada le soin de remplir l'engagement pris par notre pays auprès de la Force mobile du CAE, et continuer à lui confier la défense territoriale, les missions de maintien de la paix, l'aide au pouvoir civil, et d'autres tâches telles que le perfectionnement des ressources humaines nationales. Ramener peu à peu les effectifs de la force régulière à 13 000 membres, mais porter ceux de la Milice et des *Rangers* à 30 000 et à 2 000 membres respectivement.

4. Poursuivre les programmes d'équipement du Commandement maritime et viser à constituer une flotte raisonnablement équilibrée d'ici la fin des années 1990, flotte qui comprendrait seize frégates de patrouille ou destroyers, des navires chasseurs de mines, des patrouilleurs rapides, de nouveaux hélicoptères de lutte ASM, et un petit nombre de sous-marins classiques ou hybrides. Maintenir à peu près aux niveaux actuels les effectifs du Commandement maritime.

5. Conserver ses tâches actuelles au Commandement aérien, tout en apportant certaines modifications à ses structures, à ses stocks d'équipements et à la répartition de ses effectifs en personnel. Maintenir ces derniers légèrement au-dessus de 20 000 membres. La défense aérospatiale du continent demeurera une tâche prépondérante du Commandement aérien.

6. Déployer des efforts marqués au cours des prochaines années pour réduire l'infrastructure, les états-majors et d'autres éléments de soutien dans la structure de la Défense.

Les listes de paie de la Défense canadienne comprennent 85 073 militaires de la Force régulière et 32 893 civils en 1991. En outre, les effectifs de la Réserve se situent à environ 55 000.

En vertu de la nouvelle structure que nous proposons ici, les effectifs de la Force régulière tomberaient à 70 000 et le nombre d'employés civils à 30 000 d'ici 1995. En revanche, les effectifs de la Réserve passeraient à 70 000.

Le tableau figurant ci-après montre quelle serait la répartition de ces effectifs.

En adoptant la nouvelle structure, le gouvernement viserait principalement à créer une force militaire équilibrée et dotée harmonieusement de toutes les composantes voulues qui seraient capable de répondre aux principaux besoins du pays en matière de défense au cours des vingt prochaines années. L'effectif total serait réduit, mais les Forces canadiennes disposeraient des compétences voulues pour bien remplir les principaux rôles dans des domaines tels que la défense aérospatiale, la défense maritime, et la contribution à l'OTAN. On économiserait ainsi les fonds nécessaires pour acheter de nouveaux équipements essentiels.

UNE NOUVELLE STRUCTURE POUR LES FORCES CANADIENNES

	Effectifs actuels	Nouvelle structure 1995
	(nombre de membres)	
FORCE RÉGULIÈRE		
Forces canadiennes en Europe:		
Terre: principales formations de combat	5,000	2,000
Air:	1,000	500
Autres: fonctionnement des bases, soutien, etc.	1,000	-
Forces terrestres au Canada	20,000	13,000
Forces aériennes au Canada	21,000	20,500
Forces maritimes	12,000	12,000
Communications	3,500	3,500
(Soutien) Personnel	14,000	12,000
(Soutien) Matériel	4,000	4,000
Politiques et gestion	3,000	2,500
Divers	500	-
EFFECTIF TOTAL - FORCE RÉGULIÈRE	**85,000**	**70,000**
RÉSERVES		
Milice	22,000	30,000
Rangers	1,000	2,000
Réserve aérienne	1,500	3,000
Réserve navale	4,000	6,000
Réserve des communications	2,000	3,000
Cadre d'instructeurs de cadets	5,000	5,000
Réserve supplémentaire	19,500	21,000
EFFECTIF TOTAL DES RÉSERVES	**55,000**	**70,000**
EFFECTIF TOTAL DES FORCES ARMÉES	**140,000**	**140,000**
EMPLOYÉS CIVILS	**33,000**	**30,000**
EFFECTIF TOTAL DE LA DÉFENSE	**173,000**	**170,000**

EXECUTIVE SUMMARY

As we move towards the last years of this century, Canada needs a new defence policy that will establish realistic guidelines for this country's efforts in such fields as aerospace surveillance, protection of coastal waters, and the maintenance of world peace and security. It has to be a policy that furthers Canada's broader security and foreign affairs objectives, and that offers some hope of providing resources for the commitments that are undertaken.

The last major statement of government policy on defence was the White Paper issued in 1987, entitled: *Challenge and Commitment*. Everyone recognizes that this has now been largely overtaken by events.

The present paper aims to provide a framework for looking at the future of Canadian defence policy. It sets out the main parameters that need to be considered in any effort to develop a coherent national defence structure, and pays particular attention to the critical relationship between changing tasks and available resources.

A New Model for the Canadian Armed Forces

A new model for the Canadian armed forces is needed. This should be put in place by about 1995, and should be on the following lines:

1. The Canadian army in Europe should consist of one battalion group of infantry or paratroops with support units, as part of a NATO multinational military force. This battalion group would number about 2,000 troops.

2. First Canadian Air Division should remain in Europe, but with one squadron of twenty-four *CF-18s* rather than two squadrons.

3. Mobile Command in Canada would continue to be responsible for Canada's ACE Mobile commitment, for territorial defence, for peacekeeping, for aid to the civil power, and for such other tasks as national development. Its Regular Force numbers should be gradually reduced to 13,000. The Militia should be increased to 30,000, however, and the Rangers to 2,000.

4. Equipment programmes for Maritime Command should continue, aiming at a reasonably balanced fleet by the late 1990s, including sixteen patrol frigates or destroyers, mine counter-measures vessels, fast patrol vessels, new ASW helicopters, and a small number of conventionally-powered or hybrid submarines. The personnel numbers of Maritime Command should remain at roughly current levels.

5. Air Command will keep its present tasks, although with some modifications in structures, equipment holdings and manpower distribution. The overall manpower level should remain at just over 20,000. Continental aerospace defence will remain a task of prime importance for Air Command.

6. Strong efforts will have to be made in the next few years to cut infrastructure, headquarters staff and other support elements in the defence structure.

Canada's defence establishment comprised 85,073 Regular Force service personnel and 32,893 civilians in 1991. In addition, the Reserves establishment stood at approximately 55,000.

The new model suggested by this paper would reduce the Regular Force establishment to 70,000 and the civilian strength to 30,000, by 1995. The strength of the armed forces reserves would be increased, meanwhile, to 70,000.

The distribution of these numbers among the military commands is indicated in Table IV, entitled: **A New Model for the Canadian Armed Forces** (see page 57).

A prime objective of the New Model would be to create a balanced and well-rounded military force capable of meeting Canada's principal defence requirements for the coming period. Overall personnel levels would be reduced, but there would be enough capability to serve major needs adequately in such areas as aerospace defence, maritime defence and Canada's contribution to NATO. Funds would also be freed up, in this way, for essential investments in new equipment.

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INTRODUCTION

As we move towards the last years of this century, Canada needs a new defence policy that will establish realistic guidelines for this country's efforts in such fields as aerospace surveillance, protection of coastal waters, and the maintenance of world peace and security. It has to be a policy that furthers Canada's broader security and foreign affairs objectives, and that offers some hope of providing resources for the commitments that are undertaken.

The last major statement of government policy on defence was the White Paper issued in 1987, entitled: *Challenge and Commitment*. Everyone recognizes that there have been extraordinary changes in the world scene since that time, and that a rethinking of Canada's security and defence policies is now essential. These have to take account of some remarkable developments in the Soviet Union and Central Europe; of changing Atlantic relationships; of the Gulf War; and of other challenges posed to the international community by conflicts elsewhere in the Third World.

Canada's own situation has also evolved in important ways since 1987. At the international level, Canada has decided to withdraw 1,400 military personnel from Germany in response to reduced tensions in Europe, and has participated actively in NATO discussions on the future shape of the Alliance and its military forces. Canada committed forces to the Persian Gulf in support of United Nations sanctions against Iraq, and thus involved itself in a situation which led to outright warfare. Developments at home in this period have included the Oka crisis of the summer of 1990, and further efforts to define a new government defence policy in light of changing requirements and the prospect of new, increasingly severe budgetary pressures. Canada has also now renewed its participation in the North American Aerospace Defence Agreement (NORAD) for a further five-year period.

Developing an effective new defence policy for Canada in this context is not an easy task. International commitments need to be adjusted to a rapidly evolving world situation, and could become more onerous in some areas if there were further

developments like the Persian Gulf crisis. Equipment needs remain extensive, but the long-term prospect for the defence budget is probably for cuts rather than expansion. At most it might remain stable. To cope with this situation, economies must be made in some areas of defence activity; others, however, cannot be reduced significantly without risking an implosion of the defence structure or the abandonment of vital national interests at home or abroad.

Difficult choices will have to be made, aiming at striking a realistic balance between defence commitments and associated equipment, command structures and personnel on the one hand, and financial resources on the other. The marginal costs of changing present arrangements will have to be looked at very carefully, to make sure that Canada has a well-rounded and coherent defence system for the coming decades rather than a hotchpotch of defence activities which may function well in some areas but leave major gaps in others.

The aim of the present paper is to provide a framework for looking at the future of Canadian defence policy. It sets out the main parameters that need to be considered in any effort to develop a coherent national defence structure, and pays particular attention to the critical relationship between changing tasks and available resources. The treatment is a broad-brush one, because what is most required at this point is a sound overview of developments, requirements and possibilities, rather than a discussion on details. A subsequent paper will attempt to carry the debate a stage further, aiming at a more definitive statement of principles and requirements.

PART I THE WORLD BEFORE US

The International Situation

Canadian defence planners face a rapidly changing world. The old Cold War is now over, but there are continuing concerns about the future of the Soviet Union, the security situation in Europe, global peace and order, and regional and local conflicts in the Third World.

The Soviet Union is now in the throes of a major political crisis. Instead of a feared superpower holding sway over most of the Eurasian land mass and engaged in a seemingly endless competition for power and influence with the Western democracies, the USSR has increasingly withdrawn into itself and become preoccupied with domestic problems. Its armies have pulled out of Afghanistan and continue to be withdrawn from Central Europe, and its people and government are beset by internal political, constitutional, economic, ethnic, environmental and other difficulties. Even the continued existence of the Soviet state is no longer certain, as President Gorbachev grapples with secessionist pressures from one end of the country to another. There are fears of break-up, civil war, a return to hardline Communism, or even a military coup d'état.

After half a decade of reformist effort, there was a new hardening in Soviet domestic and foreign policies during 1991. There were crack-downs in the Baltic states, Armenia and elsewhere, and the government put relations with the West at some risk by foot-dragging on conventional arms control. It jeopardized ratification of the treaty on the reduction of conventional armed forces in Europe -- CFE I, signed at the Paris Summit in November 1990 -- by withdrawing thousands of tanks from the reduction zone (rather than preparing them for destruction), by providing inadequate data on equipment holdings, and by attempting to redesignate three army divisions and their equipment as exempt naval divisions rather than countable army ones. At present, the Soviet Union seems to be at a new turning point in its history, poised between retrenchment and the lure of

Communist conservatism on the one hand, and new efforts to move forward with domestic reform and increased cooperation with the West on the other.

Western defence planners recognized, by 1991, that the Soviet Union no longer dominated Central and Eastern Europe in the way that it once did. Its capacity for launching a massive surprise attack against the West in Europe had also disappeared. However, it still remains the greatest single military power, by far, on the European continent, and its armies could still pose serious threats to neighbouring countries, and to European peace in general, if Soviet leaders, for whatever reason, turned again to confrontation and active competition with the West.

Moreover, cuts in Soviet military capabilities at the European theatre level have not yet spilled over into similar reductions at the intercontinental, strategic one. There has been some cut back in the production of specific types of missiles, aircraft and naval forces, but the modernization of strategic forces as a whole continues in the Soviet Union as well as in the United States. A START I agreement may be signed in 1991, and a START II accord within a few years, but even both together will still leave most of the two superpowers' deterrent forces largely intact throughout this decade. Research and development work on strategic defence systems and other advanced weaponry also continues in the two countries, even if the scale of the overall effort has been reduced significantly, in the US case, since the days of the Reagan administration.

This strategic relationship between the Soviet Union and the United States poses particular security problems for Canada. Unless all the long-range bombers, nuclear submarines and strategic missiles in the superpowers' arsenals become redundant as a result of greatly improved political relations or the massive decline or virtual disintegration of the Soviet state, Canada will have to continue to pursue defence policies which recognize that this country is located, geographically, on the flightpaths of devastating nuclear weaponry.

Another region of great concern to Canadian and other Western defence planners is Central Europe. During 1989 and early 1990, this area underwent major political upheaval, and now most of its countries have crossed a divide on the path from Communist rule to multiparty democracy. East Germany has become part of the Federal Republic, and Poland, Czechoslovakia and Hungary are gravitating increasingly, despite persistent economic difficulties, towards the West European orbit. Romania and Bulgaria have also taken tentative steps towards pluralistic political systems, although for these two countries, as for Yugoslavia and Albania, both the present and future look troubled and uncertain.

A new security situation is emerging in this area as political, military, economic and other relationships evolve. Now that Soviet forces are being withdrawn and the Warsaw Pact has been disbanded as a military alliance, the countries of Central Europe are looking to pan-European institutions and the West to provide them with some measure of reassurance. They are active participants in the Conference on Security and Cooperation in Europe (CSCE) system, and support some degree of institutionalization for this process including the establishment of a headquarters and a small secretariat in Prague. They will also be involved in the European conventional arms control regime if the CFE I treaty is ratified in the next year or so. And they hope that the West European states and NATO will help in some measure to guarantee their independence even if they themselves cannot, at least for the time being, contemplate actual membership in the Atlantic Alliance.

This situation poses a particular challenge to NATO and all its members, including Canada. On the one hand, it is essential for the West not to alienate the Soviet Union or to drive it into reactionary paths by appearing to move in to fill the space that the USSR is now vacating in the central and eastern parts of Europe. On the other hand, the West has a moral obligation to support the establishment and consolidation of democracy in this region, and must not disappoint its peoples and cause them to turn from high aspirations to bitterness, despair and internecine conflict. At the strategic level, also, the West will have to decide between offering guarantees that might introduce undue

inflexibility into some future crisis, or providing assurances which are so obscure and uncertain as to leave an area of confusion or a power vacuum in Central Europe. Finding answers for this critical problem of international security may be one of the major tasks of the Western allies in the coming period, and Canada should certainly play its full part in the search for sound responses.

A further issue of great importance to Canadian defence planners is the future of NATO itself. Since the events of 1989-90 -- which transformed the security situation in Europe and brought a united Germany into the Western Alliance -- NATO has had to face up to the problems of sudden success. For several months, there were widespread expectations that the organization would soon disappear or else be transformed into a new, much looser association. Now, the general attitude among allied governments appears to be more cautious, looking to a continuation of the present organization -- though with reduced forces and a revised military strategy -- for several more years at least.

A key role of NATO military forces in the coming period will be to reassure Germans and other Europeans about a continuing American and Canadian commitment to European defence and security. Integrated forces in Germany may consist of an array of land and air units stationed in the old territories of the Federal Republic. The numbers would probably not be large -- perhaps not more than 50,000 to 100,000 stationed forces in addition to the indigenous German divisions -- and the purpose would be to display continuing commitment as well as the capacity to deploy solid though limited military forces. These would be stability-guarantee forces rather than collective defence forces in the old mode, i.e. forces dedicated to balancing the East as much as possible with sheer military strength.

Canada will have an important role to play in such military arrangements if it wishes to do so -- for several years or possibly longer. The Canadian mechanized brigade group in Germany -- 4 CMBG -- might be integrated into a multinational division including German and other allied forces; or Canada's contribution might be cut to one

battalion group, say, of infantry or paratroops and related units. At a minimum, Canada might provide groups of inspectors to verify a new arms control regime.

Another way of performing this task would be to leave part or all of the air wing -- First Canadian Air Division -- in Europe, either together with Canadian ground forces or else as the main Canadian military presence across the Atlantic. The squadrons there now -- equipped with modern *CF-18* fighters -- certainly make a valuable contribution to NATO defences; and their continued availability in Europe is appealing to European political and military leaders for that reason. As a secondary task, the *CF-18s* in Europe could also train for any new collective security operations like the Persian Gulf action.

Canada's objective in keeping forces in Europe would be to contribute to international stability; to maintain a "seat at the table" and a voice in European and Atlantic security affairs; to continue to help "multilateralize" the North American contribution to NATO; and to keep "a foot in the door" in Western Europe. This last goal might be especially valuable in the coming period: it would help to maintain a privileged relationship with the West European countries on security questions that could spill over into dealings with them in other critical areas such as trade, and scientific and technical exchanges.

Other existing Canadian commitments to NATO for the defence of Europe or the North Atlantic are the responsibility of forces stationed in Canada, and include the present Allied Command Europe (ACE) Mobile Force contingent as well as the provision of augmentation, reinforcement and mobilization capabilities for crisis periods or wartime. Canada-based naval and air forces assigned to such duties as anti-submarine warfare and convoy protection also play a vital role in allied defence efforts. In addition, the provision of training facilities in Canada for German, British, Netherlands and other allied forces is a valuable contribution to NATO.

The recent war in the Persian Gulf demonstrated that Canada's overseas security interests extend far beyond Europe. In support of collective military action, Canada

participated actively in the coalition effort that eventually drove Iraqi forces out of Kuwait. Canada dispatched three ships to the Gulf in late August; played an active role in the economic blockade; provided *CF-18* fighters, refuelling aircraft and ground support forces in the autumn; strengthened its contribution early in 1991; and then joined actively in the direct naval and air action against Iraq.

There may be further requirements for such forces in the future. If member states of the United Nations are to continue upholding world order, and to press on to the establishment of a new international society based more securely on justice and stability, then they will have to commit themselves to resisting, whenever necessary, the more blatant and threatening instances of aggression that arise. In some circumstances, there may be no alternative to the use of military force.

Canada's military contributions in such cases are likely to be similar to those in the Gulf -- limited contributions of highly-trained naval, air and ground forces that have particular expertise or specializations to offer. One or two squadrons of aircraft, two or three naval vessels, and one or two battalions of infantry or paratroops -- together with transport, logistics and other support -- will probably be the norm. Only up-to-date forces with the best, modern equipment should be sent on such operations, a requirement that should be possible to meet once the present naval building programme has brought on stream the two batches of new patrol frigates now on order.

Canada's contribution to such military operations could be very important. However, this country will not normally be expected to play a leading military role in any global coalition. The core roles will normally be played by the larger military powers, which have armed forces sufficiently large and well-endowed with a range of high-technology materiel to enable them to counter aggression by some sizeable, renegade state.

Canada should play its full part in the effort to maintain international peace and to uphold world order by military action when necessary. But this does not mean that this country should reply eagerly to every good opportunity that seems to come along to

dispatch forces to trouble spots here and there around the world. Nor should the armed forces of this country be planned and developed with an eye to participating heavily, or as a matter of course, in every United Nations or similar action that might be launched. Future contingencies cannot all be predicted or addressed in current military equipment programmes. The best approach is to develop forces that are effective in existing high-priority commitments, and then to draw on them as seems sensible, and realistic, in terms of their particular military capabilities, whenever other demands arise.

Stresses, strains and imperfections in the defence structure and the armed forces also have to be anticipated over time. The government will sometimes have to act with available forces rather than always be able to deploy elements that are perfectly tailored to each particular demand. And it may have to reduce capabilities temporarily in some existing commitment areas -- though not below an essential minimum in the most critical areas of national interest -- as it responds positively to some especially vital new requirement that arises. Blanket coverage of all defence needs, to 100 percent of demand, is not possible in the real world for any country. Sometimes, hard decisions have to be made which give priority to certain immediate tasks over well-laid plans and careful husbanding of resources; and the armed forces have to be planned, developed and utilized with that in mind.

Even if outbreaks similar to the Persian Gulf crisis are not repeated, or are few and far between, there are nonetheless many disputes and situations in the world which may involve Canada in future military activities. Most of these will probably be in the form of peace observation or peacekeeping missions of one kind or another, although other forms of military involvement are possible such as the provision of military assistance, internal security assurance, or arms control verification activities.

Canada has an established reputation for peacekeeping, and will likely continue to receive a stream of requests, over time, for communicators, logistics personnel, helicopter units, and other combat support or supply elements. Infantry battalions or companies

may also be called for at times, although this may be less frequent than requests for technical, logistics and other specialists.

The world is changing, and throwing up new challenges and new requirements in the area of international peace and security. Japan has emerged as an economic superpower, and the Asia-Pacific region is now one of the most dynamic in the world. China has established some contacts and some respectability following ostracism after the Tienanmen massacre, and may in due course resume the march towards greater liberalization and enhanced international influence that had marked its path in the early 1980s. India is becoming a major economic and military power -- despite continuing poor relations with Pakistan -- and is gaining recognition as the major regional power in South Asia. And there are many problems and causes for concern -- mixed in with some progress -- elsewhere in Asia and also in Africa and Latin America. Environmental, population, ethnic, social, economic and other challenges contribute to making this a world that is anything but settled and tranquil. It is a world which in the future may place many demands -- some of them unforeseen and unexpected -- on the Canadian armed forces.

National and Continental Tasks and Commitments

The range of defence tasks on and around this continent seems unlikely to change significantly in this decade, unless some future Canadian government decides that Soviet strategic capabilities no longer need to be countered, or concludes that some current defence activities should be transferred to or from the civilian sector. However, the nature of some of those tasks will certainly change, in response to evolving political, strategic, technological and other factors.

The aerospace defence of the national and North American territory is likely to remain a prime concern. Canada will probably continue to participate, in this field, in

joint defence arrangements with the United States. Principal activities will include the operation of early warning systems and the development of space-based surveillance.

Air Command will also continue to have responsibility for airborne anti-submarine patrolling; military air transport; and tactical air support of the land forces. Its other important duties will include participation in search and rescue services (SAR).

Maritime operations will continue to include protection of NATO sea lines of communication in the Atlantic and maintaining a capability for tracking Soviet strategic nuclear submarines off the East and West coasts. The latter task will be affected by changing patterns of Soviet nuclear submarine deployments.

Surveillance and control of the national waters, including territorial seas, fisheries zones and pollution control zones, will also remain an important task for the armed forces. Maritime Command will continue to cooperate in these operations with other government agencies such as the Coast Guard and the Department of Fisheries. In the Arctic, Canada's national maritime presence is likely to remain limited, in this decade, to bottom-based hydrophones and occasional air and surface-ship patrols in summer. Hybrid submarines may eventually provide some under-ice capability, but they cannot be deployed on active service in this decade.

Canada also has a responsibility for the land defence of its own territory, as well as for participating in continental land defence arrangements jointly with the United States. The Special Service Force located mainly in Petawawa, together with parts of the brigade groups based in Calgary and Valcartier, have this as a specified task among their various responsibilities. Other Regular and Reserve units may be drawn on for this purpose as required.

A greater requirement may be that of providing internal security, including aid to the civil power. The Army, especially, has been called on to carry out these types of duty on a significant scale on half a dozen occasions in the last twenty-five years. The

operations mounted to respond to the Kingston Penitentiary Riots, the Montreal Police Strike, the FLQ Crisis, the Olympic Games security requirement, and the recent Oka Crisis, may be repeated in various forms in this decade. These operations, moreover, can sometimes require very substantial numbers of troops. About 16,000 were deployed for the Olympic Games, and about 10,000 during the FLQ Crisis. Some of these forces can be provided by volunteers from the Reserves, but the core has normally been made up of Regulars.

Other commitments at home include protection of national institutions and facilities against sabotage and other threats during internal or international crises; assistance with national development; provision of a cadre of professionals and a mobilization base; and sustainment of supply capacities. All are likely to be continuing commitments over the next decade, even though changes on the national or international scene may alter the nature or the levels of requirements.

Canadian Imperatives and Constraints

Defence policy serves direct national interests as well as a country's broader goals on the international scene. For a responsible and significant power like Canada, defence policy should not be so restrictive as to further only the narrowest self-interest, but neither should it be so expansive as to outrun available resources or leave serious gaps at home. Stresses and strains have to be expected at times as new unexpected contingencies arise. But a country that wishes to have a successful defence policy is one that aims at balancing its international and domestic commitments on the one hand, with what can be expected by way of resources, on the other.

Canada has had three defence White Papers so far, and each one -- despite useful contributions on a range of issues -- has run into difficulties very shortly after being published. The 1964 White Paper prescribed integration of the armed forces and the creation of a new model that would be lean, hard, flexible and eventually under a unified

command, but it ran into the problem of high inflation rates which largely destroyed the hope of extensive re-equipment. Some of the *CF-5s* acquired for peacekeeping and brush-fire wars went straight from the production lines into storage, as no immediate use could be found for them, and the hopes of acquiring specialized light equipment for mobile brigades in Canada were largely abandoned, eventually, owing to costs.

The 1971 White Paper was widely perceived as shifting Canada's traditional order of defence priorities and putting protection of national sovereignty and the defence of North America ahead of contributions to NATO and peacekeeping. This seemed to be in line with the new foreign policy of the early Trudeau period, which focussed on direct national interests and trade, at the expense of multilateralism and international mediation. The White Paper also envisaged light, mobile forces equipped with a "light, tracked direct-fire-support vehicle" that could be used in tactical reconnaissance missions in Europe or a wide range of similar tasks elsewhere.

Nonetheless, Canadian forces remained committed to NATO and their equipment was mainly dedicated to this role. Funds were never made available to perform such specialized national sovereignty roles as off-shore patrolling, and all that happened in the next few years to the armed forces was that they became smaller, worse equipped, and less able -- from an equipment point of view -- to perform their many and varied tasks. National defence sank lower in the government order of priorities, and it was not until 1975, when a defence structure review showed that the system was near breaking point, that the government changed direction and began a belated effort to re-equip the armed forces. A programme of increasing resources and building up the armed forces proceeded during the following decade.

The 1987 White Paper was well-intentioned in that it aimed at matching resources to commitments. Canada's promise to send a brigade group to northern Norway in a crisis was slated to be dropped, and the Army was focussed on providing ready forces and reinforcements for the Central Front in Germany. A major build-up in personnel numbers and equipment levels was planned. However, the rhetoric and rationale of the paper

were those of the Cold War, and they quickly, if not immediately, came to seem out of tune with broad Canadian opinion about Mr. Gorbachev and the pace of change in Soviet foreign and security policies. The plan to acquire a fleet of nuclear-powered submarines made the entire document controversial from the beginning. Within three years, the dismantling of the Soviet empire in Europe had made Canada's plans for a major build-up of its land forces largely unnecessary, while the state of government finances in Ottawa had led the Cabinet to scrap the proposed fleet of nuclear-powered submarines. A whole range of other planned or envisaged equipment acquisitions was dropped as well.

And so the problem of an up-to-date and sound Canadian defence policy remains. Acquiring the range of equipment envisaged in the 1987 White Paper would have entailed increasing Canada's defence budget by at least fifty, perhaps 100 percent, over time, a possibility that is no longer remotely conceivable. In fact, the likeliest prospect is that the defence budget will be reduced, or, at best, kept stable. Reductions in Canadian forces in Europe may provide some limited relief over the next three or four years, but the dilemma of matching commitments to resources is likely to be almost as severe as it was in the 1970s.

Canada should continue to play its part on the international scene through contributions to the work of NATO, NORAD, the United Nations, and other bodies promoting peace, order and security. However, this country cannot afford to respond with alacrity to every good opportunity for promoting peace and justice that might arise in the next few years. Priorities have to be established, hard choices have to be made, and all necessary attention must continue to be paid to those direct, Canadian concerns which are vital to the continued development of this country as a major, respected, sovereign power.

The relationship between front-end commitments and infrastructure needs careful scrutiny. The key task is to work towards a model of the armed forces which balances the two, and which does not lead to a defence structure consisting mainly of logistical support systems and inflated bureaucracies unaccompanied by credible fighting capability. This model should also channel available resources into forces that are likely to remain viable

over the long term and capable of serving in a wide variety of possible contingencies. Canada needs general purpose and versatile armed forces and equipment that can carry out a wide variety of tasks.

What are the truly essential tasks of the Canadian armed forces, at home and abroad? What is required to carry them out, in terms of equipment, personnel, support facilities, and so on? What kind of model, for the armed forces, is required to perform the overall defence task adequately? How will the model combine front-end capabilities and infrastructure in a coherent, effective system? How will the long-term equipment programmes be developed to serve the needs of the new model over the next decade or two? What will the costs be, and will the necessary resources likely be made available? These are the main issues examined in the remainder of the paper.

PART II CRITICAL DEFENCE ISSUES

Aerospace Surveillance and Defence

The aerospace protection and defence of Canadian territory has long been regarded as one of the most critical tasks of the armed forces. Canada became vulnerable to direct attack by long-range bombers armed with atomic weapons in the post-World War II years, and since then has contributed actively to the joint aerospace defence of the North American continent in cooperation with the United States.

The nature of the danger posed to Canada and the United States and their responses to it have changed over time. As the primary concern became intercontinental ballistic missiles armed with thermonuclear warheads rather than bombers and their weapons, so the response shifted from active defence to early-warning and identification accompanied by only a very limited, active anti-aircraft capability. Canada's prime objective became the preservation of the security of the US deterrent, while also

maintaining necessary surveillance and control over its own vast territory, airspace and waters. Since 1958, this activity has been pursued mainly through NORAD, the North American Air Defence Command agreement and system, which has been renewed periodically by the consent of the two countries. In 1981, the mandate of this agreement was broadened and its title was changed to North American Aerospace Defence Command.

Some critical decisions were taken about aerospace surveillance and defence in the mid-1980s. Canada agreed to participate with the United States in strengthening the surveillance network by constructing a peripheral ground-based system around the continent; and also enhancing early-warning and identification capabilities in the North by such measures as upgrading forward operating locations (FOLs) and dispersed operating bases (DOBs) to accommodate interceptor and AWACs aircraft. These various measures were perceived as a transitional solution, pending an eventual movement to strong reliance on new, space-based surveillance systems.

Canada's current contribution to NORAD is provided mainly through Fighter Group, whose assets include about 50 active-duty *CF-18* interceptors, 28 training *CF-18s*, about 45 *CF-5* trainers, 25 *Silver Stars* and 6 *Challengers* partly for electronic warfare, plus two Region Operations Command and Control Centres (ROCCs) and ground-based radars.

Also, in recent years, Canada decided to cooperate with the United States in a research programme entitled the Air Defence Initiative (ADI). This was intended to explore ways of countering increasing Soviet or other bomber, air-launched cruise missile, or stand-off missile capabilities, at a time when the US was investing heavily in research into anti-ballistic missile technologies under its Strategic Defense Initiative (SDI) programme. The Canadian government did not become directly involved in SDI itself, but it allowed Canadian firms to participate in this work and authorized continued efforts in some fields which might be useful for strategic defence as well as deterrence, such as the development of space-based surveillance radars.

In 1986, the NORAD agreement was renewed for a further five-year period with no change in the scope or thrust of the accord. An intensive parliamentary review conducted in Canada prior to the extension argued that Canada benefitted from NORAD because of its contributions to international strategic stability and to the maintenance of Canadian sovereignty. Canada's efforts in NORAD helped to provide the early warning that was essential to the security of the US strategic bombers, long-range missiles, command systems and other key elements of the deterrent, the report indicated, and also provided surveillance for Canadian territory as well as some residual active defence capability. Participating in NORAD, it has been argued, also helps to ensure the joint aerospace defence of North America in ways that are not offensive to Canadian national sensitivities, and preserves Canada from having the United States come in to carry out alone the defence of the northern half of this continent.

NORAD has recently been renewed for a further five years, under circumstances substantially different from those pertaining during the previous renewal in 1986. Canadians today are no longer so focussed on the question of possible involvement in SDI through participation in the Air Defence Initiative or eventual requests to provide facilities in Canada for US ballistic missile defences or anti-satellite weapons. The SDI and ADI programmes are going ahead, but the former is a much reduced undertaking that now concentrates on strengthening deterrent forces rather than research into replacing them with a new strategic defence posture, while the latter is concentrating on surveillance and identification rather than efforts to find ways of enhancing, massively, active air defence capabilities.

The greater question in recent months has been whether NORAD is necessary at all, in light of the massive changes under way in the international system, especially the extraordinary series of events in the Soviet Union and Central and Eastern Europe that have led, since 1988, to the dismantling of the Berlin Wall, the reunification of Germany, the march towards pluralistic democracy in Poland, Czechoslovakia, Hungary and other Central European states, the elimination of intermediate-range nuclear forces, and massive reductions in conventional armed forces. Above all, the possibility of movement towards

a new world order, based on cooperation and the eventual pursuit of common security, has raised doubts about the need for continuing existing defence arrangements such as NORAD or even the basic structures of Western association focussed on the Atlantic Alliance and the integrated military structures of NATO.

In the recent debate on NORAD renewal, the hope of the proponents of major change was that improvements in East-West political relations would soon make deterrence obsolete. The strategic weaponry on the two sides would become largely redundant, at least to the extent that it was aimed at the other superpower.

However, others emphasized capabilities, and noted that intentions were apt to be fickle. They preferred to maintain existing Western defence structures, at least for the time being, until it was clear whether Soviet military policies would truly change over time to the extent of making a fundamentally new East-West relationship possible. The problems encountered by the Soviet Union as it tried to move from the old, Communist model of society to a new one based on democracy, pluralism and a market economy, were not conducive to any assumptions that progress would necessarily be either easy or durable.

In the end, the government decided in favour of the second approach, and agreed in May 1991 to renew NORAD for a further five-year period. Canada will continue to pursue the aerospace surveillance and defence of its territory, airspace and waters for the coming period through joint arrangements with the United States: and will also continue to participate in the Air Defence Initiative research programme, particularly in further work on space-based and other surveillance systems.

Aerospace surveillance and defence is likely to remain a major preoccupation of Canadian defence policy into the next century, whether it is always carried out in cooperation with the United States or not. The strategic capabilities of the two superpowers are likely to remain enormous for many years, and Canada will always be situated between them while they exist and must act accordingly to protect its own

interests. Development of a new amity between the United States and the Soviet Union might conceivably render this issue redundant eventually, as noted above, but Canadian governments are likely to view that prospect with uncertainty until such time as a new structure of peace and cooperation is truly and firmly put in place. There are also continuing concerns about potential direct military threats from other nuclear countries, as well as about drug enforcement and other requirements for effective surveillance over Canada's enormous land mass, airspace and waters.

In the longer term future, as the space age advances, the question of linkages with the United States will surely become increasingly acute. Canada will have to choose among three main models of aerospace surveillance and protection, and each will yield particular costs and benefits if it is chosen. In the first case, Canada would drop out of NORAD and pursue surveillance tasks alone, relying primarily on ground-based systems. In the second, Canada would cooperate in research and development work with the United States, but then deploy its own national military space network linked only by exchanges of information and high-level liaison to related United States military commands. The third option is for Canada to continue a close relationship in the aerospace defence field with the United States through NORAD, including joint research, development and deployment of a space-based surveillance network for North America.

Each option has its advantages and disadvantages, as well as specific costs. The first would leave Canada out of defence structures responsible for the aerospace protection of this continent as a whole, and would result in the United States soon knowing far more about what was happening in Canada's northern and frontier territories, airspace and waters than this country knew itself. The effects on national sovereignty might not be happy ones. The financial costs of going this route might, however, be very reasonable.

Option Two, establishing a national military space network, has its attractions. It would involve retaining critical linkages to the United States to the extent of ensuring continued access to data produced by the US surveillance network. The Canadian system would focus on activities of direct, high-priority interest to this country (such as the

bomber and air-launched cruise missile threat, or weather observation), and would offer some or all of the data that that produced in exchange for relevant material produced by the counterpart US system. However, the costs might be very high, especially since an effective network might entail the deployment of up to a dozen or more Canadian satellites. And, once embarked on the path of developing a national military space network, Canada would have to commit itself -- if the policy were to make any sense in the long term -- to developing, deploying and financing future generations of satellites embodying the latest trends in technology. Moreover, no one knows at present just how many surveillance satellites, or what kind, would be needed to fill Canada's particular national needs as well as its continuing requirements with respect to the broader aerospace tasks involved in defending this continent.

The development and deployment of even a first generation network of effective military surveillance satellites is still more than a decade away. Many technical problems have still to be overcome, and then difficult decisions have to be made about precise requirements, command arrangements, financing and other critical issues. The costs cannot be estimated with any precision at this point, though various sources have mentioned figures ranging from $4.5 billion for a network of eight to ten satellites to $20 billion for a network of twenty satellites. All one can say with any certainty now is that Option One would surely be much cheaper than Options Two and Three because it would discontinue certain activities which recent Canadian governments have considered essential for maintenance of the nation's defence and sovereignty; whereas Options Two or Three would probably cost several hundred million dollars per annum in the early stages and probably even greater amounts later. All will depend on the objectives that the Canadian government sets out for itself in this area, and how it chooses to delimit appropriate activities for the Canadian defence effort in this area in relation to those of the United States.

When deciding on this issue, future Canadian governments will doubtless recognize that the demands of the Canadian-American relationship on both partners may weaken as the move towards space continues. Canadian cooperation may no longer be so

necessary to the United States, for its own defence, once effective space-based networks become possible; and so Canada might either drop out of the joint arrangements with relative impunity, on the one hand, or find itself obliged to argue hard for their continuation on the other. The latter still seems the more likely course at the present time, although much will depend on the political complexion of the Canadian federal government in the second half of the 1990s. Probably, Canada will pursue the idea of space-based surveillance networks that are managed jointly with the United States, rather than a national military space network, since there seems to be neither sufficient interest in, nor financial commitment to, the latter. The likeliest prospect at present is for the continuation of NORAD or some similar arrangement, and for joint research, development and deployment of space-based systems that will cost Canada several hundred million dollars per annum in this decade and possibly more each year thereafter.

Other Air Defence Tasks

The responsibility for carrying out the overall task of national air defence rests with Air Command, which consists of five functional Air Groups plus a headquarters in Winnipeg. Fighter Group -- as discussed immediately above -- is dedicated to aerospace defence and surveillance functions. The other four groups have similar specialized duties in other environments. At the time of writing they include Air Transport Group, Maritime Air Group, 10 Tactical Air Group, and Air Reserve Group. In addition, One Canadian Air Division and 444 Tactical Air Squadron are in Germany, as part of Canadian Forces Europe.

Air Transport Group was examined in some detail in the 1986 report of the Senate Special Committee on National Defence entitled: *Military Air Transport*. That study recommended consolidating the fleet by the mid-1990s on six aircraft types and one transport helicopter type: i.e., 45 *Hercules C-130s*; 6 *Boeing 707s*; 2 *Twin Otters*; 20 *Dash 8s*; 8 *Challengers*; and 20 replacements for the *Labrador* helicopter. All *Buffalos*, *Dakotas*,

Cosmopolitans, *Dash 7s*, *Falcons*, *Labradors* and *Twin* and *Single Hueys* flying at the time the report was written would be phased out.

The aim of this proposal was to give Canada a modern military air transport fleet that would be easier to manage and better suited to this country's military and related commitments in Europe and across Canada. The "pacing factor" was the ACE Mobile commitment to northern Norway: it was estimated that forty-five *Hercules* would permit the CAF to fulfil this requirement effectively while also performing other essential duties. The acquisition of up to twenty *Dash 8s* was also recommended, for utility transport duties in Canada and elsewhere, training, and search and rescue. There was no intention of recommending that Canada develop a global military air transport capability such as a capacity to airlift a brigade to the Middle East or Central Africa, for example. The cost of the Committee's proposals was estimated at about $2 billion over a fifteen-year period.

The government has acquired some additional *Hercules* for air-to-air refuelling tasks, so that the *C-130* fleet now stands at thirty-two. Replacements for retirements or attrition are also likely in the coming years, but the government appears to have no plans at present to acquire the other thirteen *Hercules* that were recommended by the Senate Defence Committee, or to purchase up to twenty *Dash 8s* or to replace the *Labrador*. The acquisition of some additional aircraft of these types still seems necessary if Canada wishes to provide adequate air transport for the ACE Mobile battalion group, as well as peacekeeping missions, other international tasks and internal movements including those connected with training exercises.

Maritime Air Group is an integral component of Canada's naval operations, and includes, in addition to training and utility squadrons, three operational aircraft squadrons and two operational helicopter anti-submarine squadrons (that operate from frigates, destroyers and supply ships as well as shore stations). Its main equipment consists of 18 *Aurora* long-range patrol aircraft, 3 *Arcturus* coastal patrol aircraft, 10 *Silver Stars*, and 34 *Sea King ASW* helicopters.

The Senate Defence Committee and a number of experts recommended in 1983 that the *Aurora* LRPA fleet should be increased from 18 to 36, that the force of coastal patrol aircraft should be maintained, and that a modern replacement should be obtained in due course for the existing *Sea King ASW* helicopters. However, instead, the *Aurora* fleet has remained unaltered and the 18 *Tracker* coastal patrol aircraft have been retired. Some *Challengers* may be assigned to coastal patrol duties, but a new coastal patrol aircraft is now an uncertain proposition. A replacement for the *Sea King* helicopter will doubtless proceed, though probably looking to an off-the-shelf model rather than the custom-built, heavy helicopter apparently envisaged until recently by the defence establishment.

Ten Tactical Air Group (10 TAG) provides much of the close air support for the army, including "airlift of personnel and supplies within fields of operations and reconnaissance, observation, fire direction, liaison and similar missions on the battlefield (*Military Air Transport*, p. 49). It appears to be equipped, for these purposes, with up to 44 *Twin Huey* battlefield transports, and 36 *Kiowa* light observation models. In addition, there are 16 *Kiowas* with Air Reserve Group, and another 12 with 444 Squadron in Canadian Forces Europe. There are also 7 *Chinook* medium transport helicopters, but these are now being phased out and placed in storage.

The Senate Defence Committee indicated that 60 new observation and reconnaissance helicopters and at least 35 battlefield transports would need to be acquired in the 1990s to replace the *Kiowas* and *Twin Hueys*. The cost was estimated at $900 million for the former and $700 million for the latter. However, the numbers of tactical air squadrons in 10 TAG, the Air Reserve and Canadian Forces Europe have to be related to possible changes in the land forces. The tactical helicopter requirement could diminish if, for example, some or all of the land forces were withdrawn from Europe and if there were related adjustments in Mobile Command in Canada.

The remaining major component of Canada's air defence forces is One Canadian Air Division in Europe (1 CAD). This consists of three squadrons, but recent indications

are that it will be reduced to two. The force consists of about 1,000 personnel, and the main equipment holding is 48 *CF-18* interceptors. One large, composite squadron was deployed in the Persian Gulf during the recent crisis, and performed very effectively in air defence and then ground attack missions against the Iraqi force in Kuwait.

The question of 1 CAD's future in Europe is a key defence issue. One option is to leave two squadrons in Baden-Soellingen. A second option is to reduce the force to one large squadron with about twenty-four *CF-18s*, and to integrate it into a multinational NATO air wing operating out of a joint NATO base either in Germany or possibly in the Benelux countries. A third possibility would be to withdraw 1 CAD to Canada by the mid-1990s and reassign it mainly to continental air defence duties. The advantage of keeping some or all of the present force in Europe is that it would demonstrate very clearly Canada's continuing interest in European affairs, by maintaining there the most modern and effective weapons in the national arsenal. Additionally, as a secondary role, some of the *CF-18s* in Canada and Europe should have the task of supporting any United Nations or similar "world order" missions that Canada accepts in the future.

Maritime Defence

During the Second World War, over 100,000 men and women served with the Royal Canadian Navy, and 471 ships were commissioned. At the end of the conflict Canada's Navy was the third largest in the world.

Since 1945, however, the fleet has been a relatively modest one and numbers of personnel and ships have fluctuated significantly:

- By 1948, the Regular naval force had only 6,860 personnel and ten commissioned warships.

- A rebuilding process began at the end of the 1940s and then continued following Canada's entry into NATO and active participation in the Korean War.

- But then the numbers began to fall again during the 1960s.

- Since then the fleet has operated with much reduced personnel and increasingly aging equipment.

- Efforts to rebuild the navy were once again begun in the mid-1970s, but the task was a daunting one and is still far from complete.

By the beginning of the 1960s, it was clear that Canada's wartime prominence as a military power had given way to a position more normal for a middle power. The Liberal Government of Lester Pearson elected to office in 1963 set out to redefine Canada's defence policies, and by 1964 produced a White Paper that called for the integration of the armed forces and the development of a defence structure that would be much more flexible than before. An eventual unified command system was also envisaged. So far as naval forces were concerned, Canada would retain its strong ASW capabilities and its capacities for convoy work and other shipping protection activities in the Atlantic, while also developing some capability to use its fleet in support of peacekeeping operations or other far-flung requirements.

The peacekeeping and similar global tasks envisaged in the mid-1960s did not materialize on the scale anticipated. The Navy continued to concentrate on ASW duties in the North Atlantic. Convoy duties and similar shipping protection tasks even assumed a heightened importance with NATO's move to a new strategy of forward defence and flexible response -- which looked to a longer land-war in Europe and the need for massive reinforcements shipped across the Atlantic -- and the pride of Canadian naval achievements in the period after the White Paper was issued, was the development and deployment of four ultra-modern destroyers, the DDH 280 *Tribal Class* equipped with ASW helicopters and *Bear-Trap* landing gear. These four *Tribal* class vessels were

eventually deployed in the early 1970s. The aircraft carrier *Bonaventure* was also refitted (though sold in 1970).

In 1971, the second Defence White Paper prescribed new emphases for Canadian naval activities in line with the new list of defence tasks giving precedence to surveillance and control of the national territory, airspace and waters, and then the defence of North America, over commitments to NATO and finally to peacekeeping. An important feature of the document was the interest displayed in patrolling off-shore waters with hydrofoils, fast patrol boats, air cushion vehicles, and patrol aircraft, as well as in tightening cooperation with Canada's other fleets operated by the Department of Transport, the Department of Fisheries, the Royal Canadian Mounted Police, and other federal government agencies. At the same time, the aim was to continue ASW activity in the North West Atlantic and limited maritime zones off the country's West Coast.

The difficulty that confronted this approach was that the funds were never provided for the new fast patrol boats, air cushion vehicles, or similar surveillance and control craft. Nor were heavy ice-breakers acquired by other government agencies for Arctic duties in the winter. The defence budget as a whole declined significantly, in real terms, from 1971 to the middle of the decade, and the armed forces received virtually no new major items of equipment. The coastal patrolling function was left to the fleet of deep-water frigates and destroyers, which remained committed primarily to ASW duties in the North Western and Middle Atlantic.

As time went on, equipment grew increasingly old. In 1975, a defence structure review indicated that Canada would have to start spending more on defence and rebuilding its armed forces if it wished to avoid an implosion of the defence system, that is to say a collapse of critical functions in key areas which would have rendered the overall defence effort both incoherent and massively inadequate. Alarmed by this prospect, the government committed itself to a long-range rebuilding process for the armed forces, starting with the acquisition of eighteen *Aurora* long-range patrol aircraft and working forward through the acquisition of new battle tanks, fighter aircraft and other materiel.

New naval vessels were scheduled for the late 1980s and 1990s, beginning with a first batch of six patrol frigates -- authorized in 1977 and contracted in 1983 -- and then going on to additional frigates, plus submarines, new ship-borne helicopters and other items.

Considering the cost of modern naval vessels, there would certainly have to be limits on Canada's maritime ambitions. A debate arose over the kind of fleet that should be created, with some experts emphasizing the need for more ASW frigates while others stressed the requirement for lighter vessels including off-shore patrol boats. The Senate Sub-committee on National Defence argued in 1983 for a balanced, mixed fleet including, by 1996, 16 patrol frigates, 36 long-range patrol aircraft, 18 coastal patrol aircraft, 20 conventional submarines, 13 minesweepers or mine-hunters, and 12 fast patrol boats. The aim of the committee's report, entitled *Canada's Maritime Defence*, was to set out realistic proposals for a fleet that would serve well Canada's own sovereignty requirements while also enabling this country to contribute effectively -- to reasonable levels -- to the joint naval defence of North America, to the conduct of certain NATO naval activities in the North Atlantic, and to the performance of such United Nations or similar tasks as might arise.

The Senate Committee's proposals appeared to have the support of a broad range of interested opinion across the country, and evidently played an important part in the development of the new Defence White Paper that was published in 1987. Probably the White Paper would have benefitted, moreover, if the parts dealing with naval requirements and programmes had stuck even more closely to the Senate Committee's recommendations, since the overall approach they reflected was essentially a "moderate" one seeking to balance vital national requirements with increased, but not exorbitant, expenditures. However, one part of the naval section of the White Paper went well beyond anything envisaged by the Senate Committee, and this eventually contributed to destroying the consensus in favour of the new fleet that was being proposed, as well as for the White Paper as a whole.

The part that was controversial was, of course, the plan to build a fleet of ten to twelve nuclear-propelled submarines and thus to create a "Three-Ocean Navy" capable of operating in Arctic waters as well as the Atlantic and the Pacific. The government claimed that this would strengthen Canada's presence in the North while also contributing strongly to the defence of the continent and to Alliance commitments in the Atlantic, but Canadian opinion was bitterly divided over the desirability of employing nuclear technology in this way and also over the question of costs. Some observers have also suggested that an additional purpose of the nuclear submarines may have been to introduce a Canadian naval presence in Arctic waters that would have obliged the United States Navy to exchange information about submarine movements in those seas. Canada's knowledge of developments in those waters -- and thus its claims to sovereignty over them -- would thus have been enhanced.

Like many other equipment items listed in the White Paper, the nuclear-propelled submarines fell afoul of budget cuts early in 1989. The *Tracker* aircraft were also retired. However, plans went ahead for two batches of six new frigates (estimated at $9.5 billion in 1990), twelve mine counter-measures vessels (for $750 million), and ship-borne helicopters ($3 billion). The TRUMP programme -- up-dating the four *Tribal Class* destroyers for $1.9 billion -- was continued. The government also announced its intention to acquire three *Arcturus* aircraft for patrol duties in coastal areas and elsewhere. Shortly afterwards, there were intimations that the government might eventually acquire a small fleet (possibly four) of conventional submarines.

In November 1990, the House of Commons Standing Committee on National Defence and Veterans Affairs completed a report on maritime sovereignty which reviewed the work of the Department of National Defence and other government agencies in such fields as drug interdiction and the enforcement of fisheries regulations. It concluded that the government should undertake to redraft an oceans policy for Canada that took into account the importance of the armed forces in guaranteeing national sovereignty and that outlined ways of using them better to address newly emerging security issues. The general

thrust of the report was towards a better coordination of major government operations in the maritime sovereignty area.

In late-August 1990, three Canadian naval vessels sailed from Halifax for the Persian Gulf, the first engaged in active duty since the Korean War in the early 1950s.

For a country like Canada, with one of the longest coastlines in the world, maritime protection and defence is bound to remain a matter of primary national concern. Canada's interest in sovereignty over Arctic waters, in fisheries, in the marine environment, in foreign trade, in protecting the North American continent in association with the United States, in maintaining the defence of the North Atlantic and international stability in alliance with other like-minded countries, and in contributing to the pursuit of world order through the United Nations and other multilateral arrangements, all suggest that this country will wish to maintain a significant naval capability for the foreseeable future.

The question of balance is critical. Canada must seek a realistic combination of naval elements which serve direct national needs as well as international requirements, and this has to be adjusted to fit the demands of a changing world context. In addition, naval planners proceed on the basis that building programmes in their field are long-term affairs: they have to develop a fleet which will be appropriate not only for the days when the ships are launched but also for ten, twenty or even thirty years afterwards, when the vessels will still be operating, although possibly in significantly changed circumstances.

Current naval construction projects are critical to the future of Canada's maritime defence. By the mid-1990s, Canada may have only about a dozen modern frigates and destroyers in its fleet, consisting of four up-dated *Tribal Class*, the first batch of the new patrol frigate (*HMCS Halifax* has now been launched and the others are due by 1992, but there are some delays), and perhaps one or two of the second batch of new patrol frigates. The old *Annapolis* and *Mackenzie Class* vessels will then be reaching the end of their service. As the end of the decade approaches, however, the fleet should increase to sixteen modern frigates and destroyers, plus other assets including the mine

counter-measures vessels, the *Sea King* replacements, the eighteen *Aurora* LRPAs, and the three *Arcturus*.

The greatest question facing Canadian governments today, in this field, is whether a "deep-ocean" navy will still be needed in the coming years. Will there still be a requirement for ASW operations in the North West Atlantic or for convoy protection and similar shipping support far out into the mid-Atlantic? The answer depends largely on expectations about the future of East-West relations -- whether the Soviet Union will continue to maintain a capability for submarine action in the Western or mid-Atlantic, and whether NATO will remain in being as a military structure requiring a capacity for sea-borne reinforcement of Europe from North America. And will the United States, for its own protection, require that someone -- the US Navy if not the Canadian fleet -- patrol the seas off Canada? All seem reasonable expectations for the time being, since Soviet military capabilities still remain very high at present and no one can say with certainty that a new world of close cooperation and lasting amity will soon replace the confrontation of the past.

Another major issue to consider is the question of further naval operations similar to those in the Persian Gulf. These may indeed occur, but Canada is likely to use ships designed mainly for other purposes -- such as ASW patrols -- rather than building up a specialized naval intervention force. Naval power is flexible, and can be deployed for a range of purposes as new challenges arise and as world conditions change. Ships such as the *Tribal* class and the new *Halifax* class already have some self-defence anti-air protection, for example. There is no need for Canada to develop specialized fleets dedicated to the United Nations or other multilateral bodies likely to be engaged in peacekeeping, maintaining international order, or other far-flung duties of one kind or another.

One likely possibility for the development of the Canadian fleet over the next twenty years is that the present plans for frigates and mine countermeasures vessels will be completed, and then attention will turn increasingly to fast coastal patrol boats, other

mainly coastal vessels, coastal patrol aircraft and a small fleet of conventional or Air Independent System (AIS) hybrid submarines. If the technologies of the latter systems prove to be truly effective, Canada could obtain some limited under-ice capability in the Arctic that it presently lacks almost entirely. Fixed, bottom-based sonars may also be useful for this purpose. Arrangements for cooperation among Canada's various fleets -- including the Coast Guard, the Fisheries Department, and so on -- are also likely to be strengthened.

The Future of the Army

The great Canadian Army of the Second World War was demobilized very rapidly after 1945, leaving a standing force of only 20,000 to 25,000 during 1946-50. The military tasks of this force were almost entirely in Canada: most units were dedicated to the defence of the national territory, as well as aid to the civil power and such other domestic duties as might arise. The Regular Force at this time was smaller than the land forces reserves, which included about 50,000 Militia and the newly-founded Rangers as well as the land component of the Supplementary Reserve.

A new expansion of the Army took place only at the turn of the decade, with Canada's participation in the establishment of NATO in 1949, entry into the Korean War in 1950, and dispatch of troops to both Europe and Korea shortly thereafter. During the spring of 1951, Canada sent a full brigade group to Korea, and in the winter of 1951-52 sent another to Europe with 6,500 troops.

Canadian troops were withdrawn from Korea in 1954, once the situation there had stabilized following the war -- except for a handful who remained as part of the United Nations Command in Korea (UNCK). Other United Nations missions soon followed in the Middle East, where over 1,000 Canadian troops were deployed after the Suez Crisis of 1956, and in the Congo in 1960 and Cyprus in 1964. The Canadian contingent with UNFICYP in Cyprus reached a maximum of 1,126 in the 1964-74 period, and still

accounted for over 500 personnel early in 1991, as part of the longest-standing of all of Canada's major peacekeeping operations. Canada has also provided smaller contingents of ground troops, communicators, helicopter units and others for about twenty observer and truce supervisory missions serving with the United Nations or other multilateral bodies.

The main commitment of the Army since 1950, however, has been to NATO. One full infantry (later mechanized) brigade group was maintained on the Central Front in Germany, headquartered at Soest, until the late 1960s, providing about 8,000 front line and support troops for the defence of a critical sector of the allied line. Two brigade groups of the Regular Army in Canada as well as some of the land forces reserves were also dedicated to providing back-up and reinforcements for this Canadian force in Germany during the 1950s and 1960s, although there were doubts about how many reserves would actually be available to serve in Europe once a crisis arose or a war actually broke out. Also, serious difficulties were anticipated in moving these reinforcements across to Europe in time to participate in any battle, given the fact that a war in Europe was expected to last only a short time before going nuclear.

At the end of the 1960s, the tasks and deployments of Canadian land forces committed to NATO in Europe changed significantly. Troop levels in Germany were cut in half at the turn of the decade, and Canadian Forces Europe were moved from a front-line role in Northern Germany to a strategic reserve role based on Lahr in the Black Forest. Instead of a full mechanized brigade group with three infantry battalions and a solid range of supporting units, the main Canadian land contribution to NATO defences on the Central Front was reduced to one light mechanized brigade group of less than 4,000. Canada, however, committed itself to send augmentation personnel from home to join the brigade group in a crisis and to send reinforcements to replace casualties or build up Canadian Forces Europe in the case of warfare. Canada also remained committed to providing support for the Northern Flank of NATO during a crisis. The armed forces remained ready to supply a battalion for ACE Mobile Force (North) in the event of a

need for assistance to Denmark or Norway, and also undertook to send a Canadian Air-Sea Transportable (CAST) brigade group to support northern Norway in emergencies.

A critical issue for Canadian Forces Europe during the 1970s was that of replacing the *Centurion* main battle tank, the brigade's principal item of equipment. The 1971 Defence White Paper envisaged the possible acquisition of light, tracked, direct-fire-support vehicles that would allow the brigade group to carry out a range of possible duties in Europe or elsewhere, but after extensive review and consultations with the NATO allies various difficulties with this option were encountered. The allies argued forcefully that main battle tanks were essential to making an effective contribution on the modern battlefield in Europe, and there were doubts about the need for Canadian mechanized land forces elsewhere in the world. The chosen light vehicle, moreover, the British *Scorpion*, seemed likely on close examination to prove as costly as a new main battle tank. By the mid-1970s, Canada had decided to acquire the standard German main battle tank, the *Leopard I*: 128 were purchased in 1976, and eighty-five of them were put into service with Four Mechanized Brigade Group (4 CMBG) that year.

As a report of the Senate Sub-committee (later Special Committee) on National Defence -- entitled *Manpower in Canada's Armed Forces* -- pointed out in 1982, the commitment to NATO in Europe was the focus at that time for most of Canada's land force operations. The brigade group at Lahr itself accounted for 3,200 personnel, and a major part of the other land force units and personnel in Canada were also dedicated to augment or reinforce Canadian Forces Europe in crises or wartime. These Canada-based units and personnel also provided rotation possibilities for the forces stationed in Germany. The Sub-committee report recommended building up 4 CMBG and Canadian Forces Europe, so that the latter would increase from 5,400 in 1982 to 7,800 in 1985, and then to about 10,000 in 1987.

The Progressive Conservative government elected in 1984 showed inclinations to proceed along lines very similar to those recommended by the Senate Committee. An additional 1,500 troops were sent to join Canadian Forces Europe in Germany after 1985,

and two years later the new White Paper indicated a determination to concentrate Canada's land force operations even more strongly on defence of the Central Front in Germany. The CAST commitment to Norway was to be given up within about five years, and Canadian Forces Europe were to be strengthened by augmenting 4 CMBG, dedicating a second brigade group in Canada for rapid reinforcement in a crisis, and stationing advance units of the new second brigade group in Germany. Thus a complete Canadian division would be made available for service in Europe. In addition, the Government indicated its intention to carry out a wholesale re-equipment and enhancement of these two brigade groups as well as the other land forces in Canada. The ACE Mobile Force commitment to northern Norway and Denmark was maintained (although subsequently the Denmark sub-commitment was dropped). The Reserves, as well as the Regular Force, were to be built up and equipped with modern light-armoured vehicles and other up-to-date materiel.

The 1987 White Paper was published just as East-West relations were undergoing rapid change for the better. The plans for strengthening Canadian Forces Europe and the Army in general were questioned severely almost from the outset, and two years later were made redundant by the upheavals and revolutions which swept Central and Eastern Europe. The prospect of conventional arms control in Europe as well as budgetary pressures in Ottawa made much of the White Paper obsolete by the end of the decade, including the idea of acquiring a new generation of main battle tanks as the core equipment item for the Army in Europe. A Senate Defence Committee report on Canada's land forces, published in October 1989, had the advantage of clearer indications about the future of East-West relations, but even its recommendations for a "defensive-defence" or air-mobile Canadian military force in Europe were soon overtaken by the incredible pace of the political upheavals sweeping the continent. The government decided to withdraw 1,400 troops and airmen from Europe during 1991.

With the signing of an agreement on the reduction of conventional armed forces in Europe (CFE I) in November 1990, the question of future tasks and requirements for the Canadian Army was posed even more starkly than before. Although cuts in 4 CMBG

or other Canadian forces in Europe were not specified in the new agreement, it was widely expected in Canada that these forces would be significantly reduced by the mid-1990s. The issue now was to decide on roles which would be most worthwhile in terms not only of Canada's contributions to European security, but also from the point of view of serving best the coherence and viability of Canada's own defence structure.

The options before Canada as regards its land force commitment to Europe, at mid-1991, are roughly as follows: continue to maintain a light mechanized brigade in Germany, as well as forces in Canada dedicated for reinforcement duties and for ACE Mobile Force tasks; reduce Canadian forces stationed in Europe to, say, 1,500 to 2,000 personnel, in an infantry or parachute battalion group dedicated to NATO multinational force duties; reduce the Canadian contingent in Europe to less than 500 and dedicate these remaining personnel to verification or similar duties; or withdraw the Canadian Army from Europe entirely and fulfil obligations to NATO in Europe with units stationed in Canada.

If the first of these options were chosen, then 4 CMBG could probably be re-equipped with new tanks and other materiel relatively inexpensively as a result of the "cascading" process accompanying implementation of the CFE I agreement i.e., the transfer of modern equipment reduced by the German or US armies, for example, to Canada. In that case the structure of the Canadian Army in Canada would also remain largely unchanged, although there would probably still be some reductions in the manning levels of Mobile Command by the mid-1990s.

If any of the other options were to be chosen, then not only 4 CMBG but also the whole of Canada's land forces would be affected. Efforts would probably be made to refashion the army to make it a somewhat more flexible, mobile instrument, and there might be more emphasis on peacekeeping and other UN duties if that seemed viable. Responsibility for protecting Northern Canada and participating in the land defence of North America would remain, as well as aid to the civil power and national development

tasks. There would probably be greater reliance on the Reserves, especially for defence tasks within Canada.

A number of points need to be borne in mind here:

- Peacekeeping has been an important function of the Canadian land forces for over thirty years. However, at present only 2,000 CAF personnel may be called out for this duty at any one time, and only 1,215 troops were actually on duty overseas in this role early in 1991. Several hundred more may be added if Canada sends a battalion and other personnel to the Western Sahara.

- These levels might expand somewhat in the future, but that will depend as much on the demands arising from the international situation as on Canada's willingness to provide troops. It is doubtful if an annual allocation of more than, say, 6,000 available personnel would be required during the 1990s.

- Peacekeeping personnel and units are also drawn from other branches of the armed forces, in addition to the Army, such as helicopter squadrons and communications units.

- In addition to peacekeeping, Canada may become involved in the future in other United Nations and similar operations, for example on the lines of the Persian Gulf mission. However, Canadian land forces would probably field only limited numbers, in specialized capacities reflecting their own particular strengths and expertise -- for example in rugged terrain operations -- rather than supplying major armoured or similar formations. The task of providing massive ground force strength, especially for operations on a highly technical modern battlefield, must be the responsibility of the world's major military powers.

- Canada must have some capability for asserting national control over Northern Canada and for contributing to joint capabilities for the land defence of North

America, even though the danger of any serious attack on this continent, or even temporary lodgements of any kind, is minimal. Three battalion groups of Regulars, totalling 6,000 personnel, and backed up by the Reserves, are fully adequate for this purpose. These battalion groups would also, of course, have other duties, such as the peacekeeping requirement mentioned above, as well as aid to the civil power and national development. The various units of Canada's land forces are not normally single-tasked.

- The Oka Crisis of 1990 demonstrated once again the need for a solid body of highly-trained and flexible land forces, including infantry and support elements.

- The Militia and other reserves should have important roles to play in the future of the land forces. However, they are a complement to the Regular Force, not a replacement for them. They can provide some reinforcements for NATO or similar duties in a crisis or wartime, but their training and various civilian responsibilities in Canada impose limitations on the numbers that could be sent rapidly overseas. Their tasks in Canada should also be carefully defined. They need modern equipment and a thorough, sustained programme of build-up and training. The numbers of the reserves should undergo moderate expansion in the next few years.

With all these provisos, the four main options for Canada's land forces for the second half of the 1990s appear to be roughly as indicated in Table I.

Other Defence Functions

In addition to the "line" functions of air defence, maritime defence and land defence, the Canadian armed forces and their civilian counterparts are responsible for a host of other functions. These include communications, training, logistics, maintenance of bases, operation of a range of headquarters, policy direction, emergency preparedness, fostering a mobilization base, promoting academic studies, search and rescue, cadet instruction, and foreign liaison.

TABLE I

OPTIONS FOR THE LAND FORCES
(Options in personnel numbers)

Main characteristic concerning Europe		One* Retain 4 CMBG	Two Infantry or parachute battalion group	Three Verification, peacekeeping, observation	Four Zero
Main element in Europe		4,000	1,000	500	-
Other land combat personnel in Europe		1,000	1,000	-	-
Total Europe (Land)		**5,000**	**2,000**	**500**	**-**
Mobile Command (Regulars)	R	4,000	1,000	-	-
	OR	1,000	1,000	-	-
	A	1,000	1,000	1,000	1,000
	T/P	6,000	6,000	6,000	6,000
	O	8,000	4,000	3,500	3,000
Total Mobile Command (Regulars)		**20,000**	**13,000**	**10,500**	**10,000**
Total Regular Land Forces		**25,000**	**15,000**	**11,000**	**10,000**
Militia		30,000	30,000	30,000	30,000
Rangers		2,000	2,000	2,000	2,000
Cadet Instructors (Land)		2,000	2,000	2,000	2,000
Supplementary Reserve (Land)		11,000	11,000	11,000	11,000
Total Land Reserve		**45,000**	**45,000**	**45,000**	**45,000**
Total Land Forces		**70,000**	**60,000**	**56,000**	**55,000**

R Main reinforcements (for main element in Europe)
OR Other reinforcements (for other land element in Europe)
A ACE Mobile Force battalion group
T/P Territorial Defence, Peacekeeping and other **
O Others (including training and headquarters)

* See p. 74, *1991-1992 Estimates*, Department of National Defence, for total land forces in Canada.

** Peacekeeping forces may also be drawn from other Mobile Command formations stationed in Canada, as well as from the air, naval and communications services.

Communications Command, for example, has about 3,500 Regulars, 2,000 reservists, and 600 civilians. The Canadian Forces Training System has over 4,500 Regular military personnel and operates more than twenty schools. Logistics support includes a very wide range of activities relating to "material acquisition, maintenance, storage, distribution and construction."

These other functions now account for more than fifty percent of the military-civilian personnel of the Department of National Defence, and for well over one third of the defence budget. The 1987 White Paper showed the number of military personnel with line commands at that time as 55,550 (10,000 Maritime, 23,050 Air and 22,500 Land – including those in Europe), out of a total of 84,600 military and 35,500 civilians for the whole Department.

As the 1990s proceed, the government will have to make new efforts to tackle the problem of defence infrastructure if the armed forces are not to become almost all tail with little front end. The issue is a complex and politically sensitive one, as base closures in recent years have demonstrated once again. But renewed initiatives aimed at reducing support and peripheral activities to reasonable proportions will be essential in the coming period if the defence structure is not eventually to implode on itself. For example, new efforts must be made to simplify and rationalize the overly complex higher command structure – with its five overlapping levels of authority – and to reduce management functions accordingly. Also, the problem of far too many bases surely has to be resolved. Otherwise – if these various economies are not made and some front line tasks in Europe or elsewhere are given up – the Armed Forces will become massively unbalanced and increasingly unviable. That would be a prescription for disaster, since military forces must be able to produce well-armed front-line forces, in reasonable numbers, when crises arise or demands press in of one kind or another.

Defence and Society

As Canada addresses the broad question of defence requirements and structures for the coming years, those responsible must bear in mind that the armed forces play an important role in national society that must be respected as adjustments and shifts take place. The contacts between defence personnel and their fellow citizens are many and varied, and certainly contribute significantly to the overall, national well-being.

The Department of National Defence is a major employer, and also an important source of income for industry and services. In some particular locations or parts of the country, it is the primary provider of both jobs and contracts.

The Department is also a major contributor to research and development and to the provision of scientific and technological information.

The Armed Forces are very effective in providing skills to the thousands of recruits who enter each year. Most service personnel who sign up for a few years acquire technical or other skills that they can use afterwards to earn a livelihood in civilian life. This contributes significantly to the economic development of the country.

The Department also supports education for young Canadians, most notably through the military colleges. It gives broad training in discipline and citizenship to more than 60,000 young people who are enrolled in the Cadet movement.

The armed forces Reserves, too, encourage character-building among young people, while also providing some financial support on a part-time basis. The Militia and other Reserve forces have long helped to maintain a sense of national identity, purpose, values and service, especially in local communities spread across the country.

The armed forces constitute an important human part of the national mosaic. Their families are also vital members of many local communities, especially in areas including

major military bases. In the Lahr and Baden-Soellingen areas of Germany, especially, they are an important and very visible Canadian presence abroad.

The Armed Forces are playing an active role in promoting the position of women in society, and in advancing bilingualism. Further advances still need to be made in both areas, but the trends in both appear to be positive.

Other contributions to national life include mapping, engineering, disaster relief, navigation assistance and varied help, on request, to civil government. The tasks have ranged, at one time or another, from fire fighting and flood control to the development of new roads in the Arctic.

Finally, the armed Forces are an important bearer of the national heritage. They represent commitment and the capacity that so many Canadians have demonstrated over time to make a contribution to the greater good both in war and in peace.

PART III COMMITMENTS AND RESOURCES

Canada's capacity to meet its various defence commitments depends upon the resources available in the national economy and upon the degree of priority that is given to defence expenditure among the other demands and outlays pressing on the federal government. Financial requirements will also change over time as commitments alter and equipment and other needs evolve.

Canada has one of the world's largest economies. Compared with many other nations, this country spends only a relatively small proportion of its resources on defence. In recent decades, the level has continually run at around two percent of the Gross National Product, which puts Canada behind such allies as the United States, France, or Norway, for example, but roughly on a par with Denmark or Italy. Canada invests a larger

share of its national resources in defence than do Japan or such major regional powers as Brazil and Nigeria.

There is no question that current levels of defence spending could be increased if the government judged it imperative to do so. During the Second World War, defence was the primary activity of the national government and defence spending accounted for well over a quarter of the national product. This brought about a massive expansion of the national economy rather than its ruination, although it did lead to a very severe financial crisis in the immediate Post-War period.

However, defence expenditure has to be fitted in with other national requirements and commitments, and will reflect, in any given period, the country's sense of domestic priorities as well as its perception of the international situation. During the 1960s, defence spending dropped inexorably lower and lower in the scheme of government outlays, as social programmes and transfer payments to the provinces took up increasing shares of the national budget. By 1971-72, defence spending had declined to thirteen percent of the national budget. Today it accounts for less than ten percent.

The present Canadian government is in a very restrictive financial situation. Despite continual efforts to reduce the national debt and budgetary deficits, both remain major preoccupations. Transfer payments, interest payments and fixed costs absorb over seventy percent of the national budget, and efforts to break out of the existing mould are bound to take time if they succeed at all. Persistent constitutional difficulties do not encourage radical changes in financial dealings with the provinces. Recession, inflation, soaring health costs and other pressures add to the restrictiveness of the situation.

The government is making continuing efforts to limit or reduce outlays in those areas it controls directly, that is to say in the field of discretionary spending. But even there, it is limited by contractual arrangements, commitments that cannot simply be set aside, and the power of special interest groups. The approach it adopted in the 1991 federal budget was to impose some overall, across-the-board limits, while attempting to

promote cutting and pruning selectively in most of the government departments and agencies.

The defence budget increased in 1991, from $12 billion to $12.83 billion. However, $600 million of the increase was a special fund designed to cover some of the costs of Canada's participation in Persian Gulf operations, and the remainder was not likely to be large enough to keep pace with inflation. The real defence budget suffered a slight decline in 1991, though the reduction was nowhere as large as had been feared just a few months earlier. For the time being, defence was spared the cuts that hit many other government activities.

The prospects for the next few years are that defence expenditure will decline, or at best remain stable. The 1989 national budget – which eviscerated the defence programmes established by the 1987 White paper – showed that the federal government is not prepared to spend an increased share of national resources and the national budget on defence, especially in a period when there are so many other pressures upon its finances from one side and another.

The Department of National Defence will be fortunate if defence spending remains at roughly current levels. It will have to manage its funds very effectively if it wishes to keep a sizeable defence structure in being and persuade the Cabinet and the country of the viability of the national defence system. It will have to make use of the changing environment to shift emphasis from tasks that are of declining importance to those with better claims to high priority, although without going overboard to the point of cutting out whole capabilities that may be vital to the future security and self-respect of this country.

The starting point for any examination of this issue – assuming conditions of roughly constant levels of funding – is the national defence budget and expenditure plan for 1991-92. This is presented as Table II below.

TABLE II

1991-92 BUDGET AND MAIN ESTIMATES FOR THE DEPARTMENT OF NATIONAL DEFENCE
(in thousands of dollars)

	1991-92							1990-91
	Authorized person-years		Budgetary				Total	
Programme by Activities	Military	Civilian	Operating	Capital	Transfer Payments	Less: Revenues Credited to the Vote		
Maritime Forces	11,966	5,972	1,406,813	965,484	--	18,222	2,354,075	2,445,982
Land Forces in Canada	20,372	4,675	1,713,996	496,552	--	106,354	2,104,194	1,834,533
Air Forces in Canada	20,757	6,542	2,449,232	478,400	--	110,711	2,816,921	2,873,815
Canadian Forces in Europe	7,047	4	876,289	334,590	--	14,431	1,196,448	1,261,056
Communications Services	3,347	1,430	337,721	85,765	--	57,495	365,991	380,920
Personnel Support	14,068	5,587	1,219,051	126,503	401,864	35,641	1,711,777	1,654,054
Material Support	4,295	6,423	817,989	69,591	--	2,403	885,177	880,206
Policy Direction and Management Services	3,221	2,260	1,004,982	155,417	288,560	53,542	1,395,417	674,434
	85,073	**32,893**	**9,826,073**	**2,712,302**	**690,424**	**398,799**	**12,830,000**	**12,005,000**

Source: The *1991-92 Estimates* for the Department of National Defence, p. 7 and p. 74 (for numbers of planned military person-years for 1991-92).

One item of particular note in Table II is "Canadian Forces in Europe," estimated at $1,196,448 for 1991-92. This would rise significantly if the government decided to go ahead with a major programme of acquiring new main battle tanks, but it could decline substantially by the mid-1990s if the tank replacement option was set aside; if the land forces in Europe were cut to 2,000 or less; or if 1 CAD was reduced to one squadron. There would be some initial cost for re-establishing some of the withdrawn forces in this country, but overall there would be savings that might amount conceivably to a major proportion of current annual costs in that area.

Reductions of the land forces in Europe would doubtless also lead to cuts in Mobile Command, since -- as indicated earlier -- support for and reinforcement of Canadian Forces Europe is a major task of the land forces stationed here at home. For example, if land forces' personnel were reduced by, say, forty percent over the next five years, then possibly a third of the current expenditure of $2,104,194 might be saved.

It is doubtful if major savings can be realized in the annual expenditures for Maritime Forces and Air Forces in Canada. In fact, these costs may go up somewhat in real terms over the next decade as new ships are put in service and as research and development work on satellite surveillance systems proceeds. Additional aircraft for Air Transport Group, Maritime Air Group and Ten Tactical Air Group may also entail increased expenditures for those commands, though Fighter Group would probably not obtain additional new *CF-18s* if it acquired some 1 CAD aircraft withdrawn from Europe.

A critical task of defence management in the coming five years will be to reduce some of the $4,358,362 now devoted to Communications Services, Personnel Support, Material Support, and Policy Direction and Management Services (including NDHQ and other command HQs and staffs). These items account for over one third of the defence budget today, and could rise to even more if there were cuts in line functions such as Canadian Forces Europe and the Land Forces in Canada. The recent announcement of reductions of just over 1,000 positions in NDHQ amounts essentially to "normal housekeeping."

Adjusting the costs of some of these support functions will not be easy. More than seventy-five percent of the funds expended in this way are for management and related functions or for pay, allowances and pensions. Such areas are especially difficult to tackle in light of employment statutes, and the political and other costs of making changes.

Another major issue concerning the defence budget is the relationship between capital expenditures and outlays such as P, O and M (Personnel, Operations and Maintenance). The Canadian Armed Forces have faced a major problem regarding equipment acquisitions since the early 1970s, and were only part way on the road to addressing a massive backlog of requirements when the 1989 spring budget once again cut the core out of their fonder hopes. It slashed $2.7 billion of equipment acquisitions that had been planned for the next five years; and -- although the budget itself did not spell this out -- put an end to the hopes for a continuing, massive build-up effort over the next ten to fifteen years. Some programmes remained, but after the 1989 budget, there was little prospect of acquiring most of the $30 to 50 billion of new equipment that the defence planners had been considering.

Projects cancelled in 1989 included the ten to twelve nuclear-powered submarines (SSNs), the *Tracker* aircraft update, and thirteen or more new *CF-18* interceptors to meet requirements expected to arise from peacetime attrition.

Projects scaled back or put on hold in 1989 included the plans to acquire up to 250 new main battle tanks and the programme to obtain 820 new northern terrain vehicles (reduced to approximately 400 and subsequently cut further). In addition, a $670 million programme to replace the *Kiowa* light observation helicopters was put on hold until further notice.

Projects rescheduled included the plan to acquire approximately 199 Militia Light Armoured Vehicles (LAVs) and twenty-two tracked vehicles. This was postponed to 1990-91, but is in fact now under way.

At the same time, in spring 1989, the government did indicate its intention to proceed with a number of other projects, including: the acquisition of twelve new Mine Counter Measures Vessels (MCMVs); twenty-eight to forty-five shipborne helicopters to replace the *Sea King*; the *Tribal Class* (destroyers) update and Modernization Programme (TRUMP); the new frigate programme; and the North American Aerospace Defence Modernization Programme (NAADMPP). Programmes for an Air Defence Anti-Tank system (ADATs) and a heavy logistics vehicle acquisition were continued as planned.

The key question on the capital expenditure side is whether long-term naval construction plans, land forces acquisitions, air force requirements, and other capital items such as the purchase of plant and buildings, can be forged into a viable, phased programme that will provide Canada with the armed forces that it needs. In part, this depends on the size of the overall defence budget and on decisions about the weight to be given to capital expenditures on the one hand and Personnel, Operations and Maintenance (PO&M) costs on the other. But, also, it depends on the model for the armed forces that the Canadian government seeks to develop over the remainder of this decade; and on the types, numbers and costs of equipment that are acquired to make them viable and effective.

PART IV A NEW MODEL FOR THE CANADIAN ARMED FORCES

At the present time, there is a persistent gap between the resources and the commitments of the Canadian armed forces, as well as a great deal of uncertainty about the international situation. Canadians are not sure about the future directions of the country's defence effort, or about the kinds of forces that might remain in Europe, contribute to new United Nations operations, or serve to uphold defence and sovereignty on this continent.

The world is changing, and so a new model for the Canadian armed forces is needed. This should be put in place by about 1995, and could be on the lines set out below.

Canadian Forces Europe

Conventional armed forces in Europe will almost certainly be reduced substantially by 1995, under the Two-plus-Four agreement on German reunification, the CFE I treaty, bilateral accords and unilateral moves. Even if the CFE I treaty is not ratified, the other paths to reduction are likely to lead to completion of the Soviet withdrawal from eastern Germany and to other reductions elsewhere. In these circumstances, American and other NATO forces stationed in Germany are likely to be reduced to 100,000 or less by the latter part of this decade.

Canada needs to respond to this changing security situation in Europe, looking initially at the 1990s. Canadian policy-makers should also reflect that this may be a transitional period, leading to even more fundamental shifts in the European security environment. Canada will soon be in a position to make some reductions in its armed forces in Germany if it wishes to do so, without undermining Western cohesion or international confidence as this reductions process takes place. The Canadian forces in Europe symbolize this country's interest in European affairs and commitment to uphold security and promote cooperation across the Atlantic, but the exact numbers and types of forces there, are less significant politically than the fact of their presence.

At the same time, the Canadian forces kept in Europe must be militarily viable. They should have clearly defined tasks and the equipment to carry them out. And they should be linked to other allied military formations in ways that will make the best use of their capabilities. They might form part of one of the allied multinational units that are now being discussed.

Although the issue has not been finally decided, there now seems little prospect that the Canadian land forces will obtain a new main battle tank. The cost of maintaining a highly mechanized force in Europe would be a high one, and the government is obviously reluctant to move in that direction in light of the new political atmosphere and altered security environment that now prevails across the Atlantic. It might obtain new tanks and a range of other modern equipment at little initial cost through the "cascading" process that may accompany conventional force reductions, but even so it seems unconvinced about the long-term value of maintaining a strong armoured or mechanized brigade group in Europe. The days of the Canadian main battle tank seem to be ending.

If this is so, then the best alternative would seem to be to maintain a battalion group of infantry or paratroops in Germany together with some ground air defence, anti-tank, artillery, helicopter, ground transport and other support units. This could number between 1,500 and 2,000 personnel, and could be closely associated with German and American units, taking responsibility for such tasks as mountain defences, the defence of specified urban strong points, or such other defence duties in southern Germany as seem appropriate to Canadian and allied defence planners. By 1995, there will be a completely different defence situation in Germany from that prevailing a decade earlier: a united Germany will be there as a full member of NATO, there will no longer be Soviet forces in eastern Germany, and there will no longer be a Central Front running down the middle of the country.

Keeping 2,000 troops in Germany would not be a negligible act. The forces now committed to ACE Mobile Force by Canada and most other countries number less than 1,000 in each case, and yet are not considered a derisory contribution. In the new security environment in Europe, the maintenance of 2,000 military personnel in Germany would surely be seen as a worthwhile measure in military terms as well as in purely political ones.

Another approach to maintaining a military presence in Europe would be to concentrate on providing peacekeeping units, or verification teams for the CFE arms

control regime. However, it is not clear yet whether peacekeeping missions will have a major role to play in the future of Europe, and there are also questions about the numbers of military personnel who may be needed for verification purposes. Canada might not be required to provide more than, say, one or two hundred. An absolute maximum is probable five hundred. Doubtless such a presence would constitute a useful contribution to European security, but it might not be very visible or seen as a very significant *military* endeavour by the other Western allies.

Pulling Canadian land forces out of Europe entirely -- the other possibility -- means losing an important position in Europe. The limited cost of maintaining a small force there seems well worth the price, and can only strengthen Canada's hand in discussions about European security or in dealings with Germany and the other West European states on a range of political, economic, trade and other issues.

Another advantage of maintaining a battalion group in Germany is that it would provide a further, worthwhile task for Regular army forces which must, in any case, be kept in being by this country. Even if Canada was to withdraw its army units from Europe entirely, it would still have to keep a substantial number of troops available in this country in order to provide minimum levels of territorial defence as well as aid to the civil power when necessary. Some of these personnel must be Regulars, moreover, because of the high levels of training, discipline and objectivity required sometimes to handle civil disturbances.

Regarding the First Canadian Air Division, the second option mentioned earlier in the paper seems to be the best one i.e., keep one large squadron with twenty-four *CF-18s* in Europe as part of a multinational NATO air wing, but withdraw a similar number of *CF-18s* and about half of the personnel to Canada for North American defence duties. Some of these planes will be required here before long to make up for aircraft lost in attrition or undergoing midlife updates. In addition, the *CF-18s* in Europe and some of those in Canada could train, as a secondary duty, for possible enforcement actions with the United Nations.

Mobile Command

Mobile Command faces significant reductions over the next few years as the mechanized role withers and the Army shifts to a more lightly-armed mode. There will be less need for reinforcements for Europe, although this requirement will probably not disappear entirely. A sizeable Regular force will remain in being, but there is likely to be greater reliance on the Militia for territorial defence and similar tasks in Canada. The National Defence Act should be modified to allow greater use of the reserves.

Infantry or parachute battalions are likely to provide the core of the Army, and their numbers are likely to decline from ten (including two in Europe) to perhaps six (including one in Europe). One can imagine the kind of adjustment outlined in Table III below.

Of course, some rotation of these units would take place according to an established schedule. For example, each two or three years, the battalion in Europe would be brought back to Canada and replaced by one of those then stationed here.

Other Regular land forces elements would also be reduced, in some cases to a greater extent than the infantry. The prospect is for a reduction of the Regular land forces from about 25,000 in recent years to about 15,000 in 1995.

This number would keep in being a force that is sufficiently large to carry out duties in peacekeeping or new United Nations enforcement actions that might arise. The infantry battalions and some other units could expect to be sent to Cyprus for six-month periods until that commitment is eventually terminated, and possibly up to 3,000 troops from infantry and parachute units could be designated as available on request for peacekeeping missions in general. In addition, about 3,000 other troops, mainly from specialized units such as signals and logistics groups, could also be kept available on a standby basis. Canada could give two of its infantry or parachute battalions the secondary task of preparing for future UN enforcement actions. This country is not likely to be

TABLE III

INFANTRY-PARACHUTE BATTALIONS

	1991	1995	
Area, etc.	**Units**	**Units**	**Location/Primary Tasks**
West	1 PPCLI 2 PPCLI	1 infantry battalion	Calgary / territorial defence of Western Canada, peacekeeping, etc.
	3 PPCLI	1 infantry or parachute battalion	Calgary / Europe reinforcement
Special Service Force	1 Airborne 1 RCR	1 parachute battalion	Petawawa / Northern and other territorial defence, peacekeeping, etc.
East	2 Van Doos 3 Van Doos	1 infantry battalion	Valcartier / territorial defence of Eastern Canada, peacekeeping, etc.
	2 RCR	1 infantry or parachute battalion	Gagetown / ACE Mobile Force
Europe	1 Van Doos 3 RCR	1 infantry or parachute battalion	Lahr or elsewhere / European defence

N.B. Two of the six battalions in 1995 would be francophone. If both francophone battalions were in Canada, they would both be located at Valcartier, and Calgary would then house only one battalion.

Key:

PPCLI	Princess Patricia's Canadian Light Infantry
RCR	Royal Canadian Regiment
Van Doos	Royal Vingt-Deuxième Régiment
1 PPCLI	First Battalion, PPCLI

involved in land operations on high-tech battlefields such as encountered in the Persian Gulf Crisis, but not all future UN operations -- if they recur -- will necessarily take place on terrain suited to armoured warfare. Some future operations might be in mountainous country, jungle, or similar rough terrain, where well-trained light forces, including infantry and paratroops, could make very worthwhile contributions.

As the Regular force element of the land forces is reduced, the Reserves should be built up in order to provide assured coverage of defence tasks in Canada, to supply reinforcements for Europe in wartime, and to maintain a base for reconstitution of larger forces in the event of any more prolonged conflict. However, with the demise of the old Cold War, there no longer seems to be much point in couching such an increase in terms of the 90,000 reserves (all services) set as an objective in the 1987 White Paper. A total of 30,000 Militia and 2,000 Rangers will probably be adequate on the land side, out of total reserves for all services of, say, 70,000. It is more important to provide the Reserves with clearly-defined tasks, good equipment, and a sense of purpose, than a sheer addition to numbers.

The four infantry battalions and some of the other units stood down from the Regular forces should be transferred to the Militia list. Many of their officers and senior NCOs could be transferred to Militia duties on loan from the Regular force, and the remainder would be reduced in numbers mainly through attrition as well as normal, annual turnover. Infantry battalions especially have a high rate of annual turnover, among the ranks particularly, since many of the troops serving with these units enter the armed forces under relatively short term engagements or move on to do technical or other training after an initial period in the front-line formations.

The equipment needs of the land forces are another major consideration. The objective now should be to provide them with small arms, artillery support, anti-armour systems, transport vehicles, light armoured personnel carriers, and light support vehicles. Some of these items are already in the inventory; others such as the Heavy Logistic

Vehicle Wheeled (HLVW) and the Militia Light Armoured Vehicle (MILLAV) are now being acquired; and others still need to be ordered.

A decision not to replace the main battle tank will mean that the Canadian land forces will no longer be designed for operations in high-intensity, highly mobile, high-tech battlefield conditions. Their normal mode of operations will be as specialized forces for rugged mountainous or northern conditions, or else for urban environments where defensive or house-to-house actions may predominate. Alternatively, they may be employed in frontier regions where air transport and ground mobility for small numbers of highly-trained troops are critical, or in riot-control and similar functions. Consequently, they will not need the same numbers of heavy-armoured personnel carriers and other mobile battlefield vehicles that were anticipated in the last Defence White Paper. The reduction in the number of infantry battalions from ten to six would also reduce requirements of this kind.

The great rationale for the New Model Canadian land forces will be a capacity to provide highly-trained troops and supporting units who can operate effectively in rugged terrain or difficult physical or human conditions. They should be elite infantry or paratroops, with supporting elements, in the best of some of Canada's own military traditions. The government should avoid attempts to emulate such specialized, equipment-intensive forces as marine corps, air cavalry or long-range intervention brigades. The New Model force should also include a strengthened Militia and other reserve forces.

Maritime Command

Present equipment programmes for Maritime Command should continue, aiming at a reasonably balanced fleet by the late 1990s (including sixteen patrol frigates and destroyers). A number of new submarines should be acquired in the second half of the decade, and these might be either conventionally-powered or hybrids. New fast patrol boats should be purchased. Manpower numbers should remain at roughly constant levels.

Arrangements between Maritime Command and other government agencies operating patrol vessels should also be strengthened.

Air Command

Air Command will continue to be the largest formation in the Canadian armed forces throughout the 1990s and should not undergo major reductions. But it will face some modifications in composition as a result of changing commitments and equipment holdings. One squadron of First Canadian Air Group should remain in Europe, but the remainder of its manpower, aircraft and other equipment should be brought back from Europe and amalgamated with Fighter Group. Ten Tactical Air Group should acquire replacements for the *Kiowa* light observation helicopters and the *Twin Huey* medium transports, but the numbers obtained will be less than estimated earlier owing to the reduced size of Mobile Command. The number of squadrons and personnel in 10 TAG could be reduced to some degree for the same reason. Maritime Air Group, meanwhile, should obtain some medium-range coastal patrol capability, as well as new ship-borne helicopters. Air Transport Group should be provided with some additional *Hercules*, as well as some replacement aircraft. Air Reserve Group may continue to operate some of the present *Kiowa* helicopters, while also providing squadrons or augmentation personnel for air transport and similar duties.

Air Command should continue to play an active role in the operation of ground-based and airborne surveillance systems, dedicated to the aerospace defence of this continent and to national surveillance and control requirements. Canada should also participate actively, with the United States, in the development of space-based surveillance systems, aiming at deployment of an effective, passive, satellite network early in the next Century.

Other Elements

Communications Command is likely to remain at current levels. There will also be a continuing need for effective training systems and logistics operations. However, strong efforts will have to be made in the next few years to bring support and administrative personnel numbers down significantly. Headquarters staffs, senior officer ranks, some civilian categories, and base establishments will all need cutting, to fit the reduced size of the new defence establishment.

Overall Personnel Numbers

Canada's defence establishment comprised 85,073 service personnel and 32,893 civilians in early 1991.

The New Model of the armed forces that is developed by 1995 should be on the lines of the Option Two that was discussed earlier regarding the land forces.

In 1995, personnel numbers for the armed forces as a whole would be roughly on the lines indicated in Table IV below, entitled: **The New Model for the Canadian Armed Forces.**

The changes in the Regular force and in the Militia have already been discussed. Other points to note are as follows: the Rangers would be augmented to strengthen capabilities in the North; the Naval Reserve would be increased because of added responsibilities, including those for operating the new Mine Counter-Measures Vessels; the Air Reserve would also benefit from a small increase, owing to extra requirements in air transport and similar duties; and the Supplementary Reserve would be increased marginally and also strengthened in effectiveness by introducing minimal annual reporting and training requirements. At this time it still amounts to little more than a list of names.

TABLE IV

THE NEW MODEL FOR THE CANADIAN ARMED FORCES

	Current Figures (in personnel	1995, New Model strength)
REGULAR FORCE		
Canadian Forces Europe:		
Land: main combat formations	5,000	2,000
Air	1,000	500
Other: base operations, support, etc.	1,000	-
Land Forces in Canada	20,000	13,000
Air Forces in Canada	21,000	20,500
Maritime Forces	12,000	12,000
Communications	3,500	3,500
Personnel Support	14,000	12,000
Material Support	4,000	4,000
Policy Direction and Management	3,000	2,500
Various	500	-
TOTAL REGULAR FORCE	**85,000**	**70,000**
RESERVES		
Militia	22,000	30,000
Rangers	1,000	2,000
Air Reserve	1,500	3,000
Naval Reserve	4,000	6,000
Communications Reserve	2,000	3,000
Cadet Instructors	5,000	5,000
Supplementary Reserve	19,500	21,000
TOTAL RESERVES	**55,000**	**70,000**
TOTAL ARMED FORCES	**140,000**	**140,000**
CIVILIANS	**33,000**	**30,000**
TOTAL DEFENCE PERSONNEL	**173,000**	**170,000**

Commitments and the Budget

A prime objective of establishing the New Model would be to create a military structure capable of meeting Canada's principal defence requirements for the coming period. Overall personnel levels would be reduced, but there would be enough capability to serve major needs adequately in such key areas as aerospace defence, military air transport, maritime defence, territorial defence and aid to the civil power. Canada would also have the armed forces it needs to fulfil realistic expectations concerning commitments to NATO, peacekeeping, the maintenance of world order, and other international demands.

Equipment programmes will be especially important. A major attraction of the New Model would be that it would reduce personnel costs by over ten percent and permit significant reductions in other expenditure areas such as operating costs in Europe. About $1 billion per annum (in constant 1991 dollars) should be freed up for additional investments in equipment, to supplement the $2.7 billion of capital expenditures now envisaged for 1991-92. This should enable the Department of National Defence to fulfil the greater part of its essential equipment needs over the 1990s, for example by acquiring some additional, state-of-the-art ship-borne helicopters, *Hercules* transports, observation helicopters, anti-tank weapons, coastal patrol vessels and conventional or hybrid submarines. It should also enable Canada to stay involved in critical areas of defence-related research and development, including new systems in the fields of space-based satellite surveillance and anti-submarine technology.

Of course, this will not be the first time that efforts have been made to shift defence funds from Personnel, Operations and Maintenance (P,O & M), to capital expenditures. Sometimes the hopes largely disappeared in the face of other budgetary pressures and inflation. But in the late 1970s, for example, the effort was largely successful for a while, and there is no particular reason now why it could not be so again. The main problem may be that of protecting the defence budget from other demands upon the national treasury, so that defence spending does not slip significantly lower in the order

of national priorities than it is at present. The New Model could probably be put into place effectively if National Defence could be assured of current funds plus enough to offset inflation (and given some reasonable idea about multi-year funding). But it could not be pursued realistically if all the funds freed by reductions in defence personnel costs were simply lopped off the defence budget. All that that would produce would be a hotchpotch of capabilities that would be even more limited than they are today, and a defence structure that was mainly tail and little front end.

The Main Objective

The principal goal of the New Model would be to develop, over the next few years, a balanced and well-rounded defence force that is fitted to Canada's true needs. It would aim to satisfy the key needs of the country's armed forces for orderly planning and development, while also providing a defence structure that properly serves the nation's interests both at home and abroad.

GLOSSARY

ACE Mobile Force	Allied Command Europe Mobile Force
ADI	Air Defence Initiative
ASW	Anti-submarine Warfare
AWACs	Airborne Warning and Control System Aircraft
1 CAD	First Canadian Air Division (formerly 1 CAG -- First Canadian Air Group)
CAF	Canadian Armed Forces
CAST	Canadian Air-Sea Transportable Brigade Group
CFE I	Agreement for the reduction of Conventional Armed Forces in Europe, signed in Paris in November 1990
4 CMBG	Fourth Canadian Mechanized Brigade Group
CSCE	Conference on Security and Cooperation in Europe
DDH 280	The Tribal class of destroyers
DOBs	Dispersed Operating Bases
FLQ	Front de Libération Québecois
FOLs	Forward Operating Locations
LRPA	Long-range patrol aircraft
NATO	North Atlantic Treaty Organization
NORAD	North American Air Defence Command and agreement, established in 1958; name changed to North American Aerospace Defence command and agreement in 1981
ROCCs	Region Operation Command and Control Centre
SAR	Search and Rescue
SDI	Strategic Defence Initiative
START	Strategic Arms Reduction Talks
10 TAG	Tenth Tactical Air Group
Two-plus-Four	Negotiations about the future of Germany, including the Federal German Republic, the German Democratic Republic, France, the United Kingdom, the United States and the Union of Soviet Socialist Republics
UN	United Nations
US	United States of America
USSR	Union of Soviet Socialist Republics